Clinical Lecture
ON A
CASE OF INJURY OF THE CORNEA BY ABRASION;
WITH GENERAL PATHOLOGICAL REMARKS ON KERATITIS.

Delivered at University College Hospital Nov. 14th, 1878,

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GENTLEMEN,—There is a man, aged seventy-two, at present under treatment for an abrasion of the cornea, caused by the stroke of a twig while he was engaged in his occupation of a gardener, pruning a bush. Very severe inflammation was excited by the injury, which, as I pointed out at the time, presented the characters of catarrho-rheumatic ophthalmia—viz., great vascular congestion of the conjunctiva and sclerotica, with excruciating circum-orbital pain and indications of an extension of the inflammatory action to the iris.

Such cases, when seen in time and properly treated, in general admit of being satisfactorily cured, but if neglected, they are liable to run on to damage of the eye by purulent infiltration of the cornea. The injury is one to which reapers, during harvest, are much exposed from an ear of corn striking across the eye. The late Dr. Walther, Professor of Surgery in the University of Munich, and previously at Landshut, before the university of that place was transferred to Munich, published a pamphlet on the subject in 1810, entitled, "On a Remarkable Cure of a Purulent Eye," in which he relates that in the Isar district of Bavaria, where he practised before going to Munich, from fifty to sixty eyes used to be lost annually among the reapers there from the injury under notice.

Cases often occur in which the abrasion of the cornea is caused by the nail of a finger accidentally thrust into the eye. Mothers and nurses are very liable to the injury in this way from the infant's fingers. Abrasion of the cornea to a dangerous degree is not unfrequently caused also by awkward attempts to remove a foreign body sticking on the surface of the cornea. A sudden wipe of the cornea from a handkerchief or the like flapping into the eye causes considerable uneasiness, lachrymation, and intolerance of light for a time. The expression "a wipe on the eye" is sometimes used metaphorically for the "retort courteous," as being stinging, though in its effect not lasting.

It is remarkable how much more sensitive the cornea is to injury of this nature than to a simple, clean, direct puncture or incision. In like manner an abrasion of the skin causes more irritation than a small cut. The cornea is pervaded with sensitive nerve-fibrils derived from the fifth. These fibrils have a reflex connexion with the portio dura in the orbicularis palpebrarum muscle, with the vaso-motor nerves of the vessels of the adjacent conjunctiva and sclerotica, and also with the ramifications of their parent nerve on the face: hence the pain suffered at the seat of the injury, hence the sudden closure of the eyelids at the moment of the injury, hence the inflammatory congestion of the conjunctiva and sclerotica which so quickly supervenes on the injury, and hence the facecache arising from the irradiation which takes place to the other branches of the parent fifth nerve, through its root in the brain.

The cornea is, in its fully developed and healthy state, non-vascular, but though it is itself not pervaded with bloodvessels, it is in proximity and continuity with the vascular conjunctiva and sclerotica, from the blood circulating in the vessels of which it derives the material necessary for its nutrition.

Now, query, How does this material pass from the blood in the vessels of the conjunctiva and sclerotica into the interstices of the cornea, seeing that in the healthy state no ramifications extend from those vessels into the cornea? Of late years the answer given to this question has been, according to the dictum of Professor Cohnheim, an eminent pathologist, formerly of Berlin, but now of some other university of Germany—of late years, I say, the answer given to this question has been that the material which the cornea receives from the blood circulating in the vessels of the conjunctiva and sclerotica consists in the white corpuscles, and the way in which these corpuscles pass out from the blood circulating in the conjunctiva and sclerotica is alleged to be, by boring through the walls of the vessels, and then, by their own amœba-like wandering movements, entering the interstices of the cornea. I suppose this is the doctrine you are taught at lectures, which you read in text-books, and which you are expected to retail at examinations under the penalty of rejection. I have little hesitation, however, in telling you from this chair that, in my opinion, it is not founded on accurate observation. I have watched the circulation under the microscope for hours together in the web of the frog's foot, in the frog's mesentery, in the frog's tongue, in the frog's lungs, in the lungs of the water-newt, and in the web of the bat's wing, but never saw an escape of white corpuscles by their boring through the walls of the vessels. The nuclei in the walls of capillaries, I may observe, have been mistaken for white corpuscles half way out in making their escape from the vessels. Again, I have, indeed, observed that in the course of an inflammation the walls of small vessels have, at some place, given way, and that white corpuscles may be seen collected in the track of the ruptured vessel. This figure, which I show you, represents such a case, but the white corpuscles which had thus become free by the giving way of the walls of the vessel did not change their shape, nor wander from the place. On the contrary, they remained like the stones in the channel of a river which has subsided after having overflowed its banks. The stream of blood, you see, continued in a passage without proper walls, and bounded only by the accumulated white corpuscles.

I was the first, I believe, to describe and delineate the white corpuscles of the blood as they appear in the act of undergoing the amœba-like changes of shape and movements. In my papers which were published in the Philosophical Transactions in 1846, and in other writings, I have pointed out that those changes of shape and movements of the white corpuscles take place, not within the vessels, but only after the blood has been drawn from the body by a wound. Within the vessels in the living animal, I never saw the white corpuscles undergo any such change as that alleged—viz., the shooting out of its wall into a sharp process by which to bore its way through the wall of the vessel.

The mesentery of the frog, it has been said, is the part in which, when disposed under the microscope, you can see very distinctly the white corpuscles which have escaped through the walls of capillaries; and not only through the walls of capillaries, but necessarily through a layer of the mesenteric peritoneum also, seeing that the corpuscles which present themselves are free on the surface of that membrane. You may, indeed, see plenty of white cells lying free on the exposed surface of the mesentery, and these undergoing amœba-like changes of shape, but you see none escaping from the vessels. The white cells you see are not white blood-corpuscles which have escaped from vessels by boring through both their walls and a layer of the peritoneum also. The cells you see belong to the peritoneal serous fluid, though some may be white blood-corpuscles extravasated by the wounding of vessels, which takes place in disposing the mesentery for examination under the microscope.

Moreover, unfortunately for the assertion that white corpuscles may be seen boring through the walls of the capillaries of the frog's mesentery, I have to inform you that in the frog's mesentery there are no capillary vessels at all. It is an important anatomical fact discovered by me, which I beg you will take note of and remember, that in he frog's mesentery the small arteries open directly into the veins without the intermedium of capillaries and venous radicles. Just at the place where a small artery enters the side of a vein, it becomes divested of its muscular coat, so that there—viz., at the place of entrance—the artery appears suddenly somewhat constricted, but this constricted part is not a capillary. This, I may observe, is the only known demonstrable example of small arteries opening directly into veins without the intermedium of capillaries and venous radicles. Any appearance of such in an injected preparation I reject as untrustworthy. And here I must warn you that injected preparations for the microscope, though pretty enough toys, are, from a scientific point of view, for the most part utterly worthless. Some years ago it was alleged as a dis-

covery, that in the bat's wing the small arteries open directly into veins, but I showed that this was a mistake. In the paper from the Philosophical Transactions which I here exhibit to you I demonstrated that in the bat's wing the small arteries open into capillaries and the capillaries into venous radicles, in the normal manner. In Mueller's Physiology it was long ago remarked that Professor Schwann had found the capillaries, as he supposed, of the frog's mesentery to have a circularly fibrous coat like small arteries. By this statement it will be observed that the small arteries had been mistaken for capillaries, a mistake which, as I have hinted, even now prevails and is taught you as a fact.

There are white cells in the interstices of the cornea, as may be seen in a piece of cornea under the microscope, which undergo amœba-like changes; but they are not white corpuscles of the blood. They are proper corneal corpuscles, similar in nature to the corpuscles of the cellular tissue, which are formed and reformed, in the process of the nutrition of the cornea, out of the plasma derived by imbibition and diffusion from the blood circulating in the vessels of the adjacent conjunctiva and sclerotica.

And here let me draw your attention to a point but little understood or recognised. Cells, in the early stage of their formation, all resemble each other very closely in external appearance; but different cells have different potential qualities, so that one kind of cell becomes developed into one kind of tissue only, and another into another kind of tissue only; and in this process the different kinds of cells appropriate for their formation and development each its own proper materials from the blood. Furthermore, the different cells and the different tissues into which they may be transformed all have their own proper physiological endowments, so that cells of one kind cannot take the place and perform the functions of cells of another kind possessed of different endowments. In like manner, different cells have their own proper morbid proclivities.

To return to the white corpuscles of the blood. They are concerned in the elaboration of the blood, but do not enter indiscriminately into the formation of the different tissues of the body, nor collect by boring through the walls of the vessels of a phlegmonously inflamed part and form the pus-corpuscles of an abscess, as, according to the doctrine I am combating, they are represented to do—supposing it to be a fact, which it is not, that they pass out bodily through holes which they have bored in the walls of the vessels.

In regard to the external form of cells, here let me particularly insist that great mistakes prevail by assuming that the shape of a detached and dead or moribund cell is the normal shape such as the cell presents, in its living state, within the living body. The amœba-like changes of the white corpuscles of the blood you ought always to remember are nothing more than moribund changes.

But to return to our case of the old man:—Great inflammatory congestion of the conjunctiva and sclerotica, with circumorbital pain, followed the injury of the cornea in the manner we have seen. It is an old maxim in pathology that where the wound is, there the afflux of blood or congestion takes places—*ubi ictus, ibi fluxus*. But the maxim is not applicable to an injury of the cornea because that structure is non-vascular. Congestion accordingly did not and could not present itself in the cornea of our patient. We must therefore modify the maxim as regards cases of the kind under notice, and say—*Hic ictus, ibi fluxus;—here* in the cornea has been the stroke, *there* in the conjunctiva and sclerotica the afflux of blood or congestion has taken place.

Its non-vascularity notwithstanding, the cornea may idiopathically fall into a morbid state; and its non-vascularity notwithstanding, it may also be the seat of the healing process. Still it is always to be kept in mind that in either case the adjacent parts of the conjunctiva and sclerotica are found more or less congested.

When an interstitial morbid process commences in the cornea, congestion of the white of the eye supervenes at the place nearest the affected part of the cornea. In consequence, therefore, of the non-vascularity of the cornea, we have, in commencing inflammation of it, an instructive analysis of the inflammatory process into its two great steps—viz., the vascular congestion in one place, and the exudation of lymph in another; the congestion manifesting itself in the redness from increased vascularity of the adjacent parts of the conjunctiva and sclerotica; while the exudation is manifested by opaque deposit in the cornea itself.

In certain inflammations of the cornea, that structure is often found to have become vascular. This is owing, not to the enlargement of vessels previously invisible, but to the development of new vessels in and out of lymph exuded into the interstices of the cornea, the new vessels being in continuity with those of the adjacent part of the white of the eye. Such morbid vascularity, however, let me repeat, is not a necessary condition in keratitis, for we often find the cornea, when inflamed, to be, as I have said, the seat of the exudation only, the congestion on which the exudation depends being still confined to the adjacent conjunctiva and sclerotica; while in the healing process we may see non-vascular granulations filling up an ulcer, and this followed by cicatrisation.

In an article on Inflammation which I contributed to the late *British and Foreign Medical Review*, now many years ago, and of which you will find the substance in my "Ophthalmic Medicine and Surgery," I dwelt on keratitis as being an instructive study for the elucidation of the pathology of inflammation generally. Some years after that Professor Virchow, of Berlin, distinguished as a politician as well as a pathologist, took up keratitis as the basis of his cellular pathology doctrine, in which he tried to show that vascular congestion is no necessary condition in the inflammatory process, and that virtually, therefore, cells can proliferate, or make other cells, out of nothing, in opposition to the truism "*Ex nihilo nihil fit.*"

To come, in conclusion, to the treatment of our case. You saw that I ordered the application of leeches at the corners of the eye, and prescribed calomel with Dover's powder in pills, and atropia lotion. When the man again presented himself the inflammatory congestion was much abated, the pain relieved, and the abraded cornea healing. If the man had been younger I would have prescribed venesection, which I have found in other cases, when the inflammation has been severe, exert a most beneficial effect, without at all impairing the patient's general strength. If a case of injury of the cornea by abrasion has been neglected or improperly treated before coming under your care, you will most likely find abscess of the cornea, iritis, and hypopyon, while the patient appears bowed down by the suffering he has undergone. But I will not now go into the nature and treatment of this state of matters, for, happily, our patient's eye has been saved from it.

Clinical Lectures
ON
SOME POINTS IN THE DIAGNOSIS OF SPINAL SCLEROSIS.

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LECTURE III.

OSSEOUS AND ARTICULAR LESIONS IN LOCOMOTOR ATAXIA.

THERE is a patient in David Wire ward whose case illustrates very well one of the comparatively rare features of progressive locomotor ataxia. The study of his condition is important, not only on account of its physiological and pathological interest, but also from a diagnostic point of view, because the tendency of certain symptoms which he presents is to mask others which really form the key to the nature of his disorder. Indeed, this has actually happened in his case.

W—— is a man aged thirty, who walks down the ward with that kind of distinct halting gait which shows at a glance, without room for doubt, that one of his legs is considerably shorter than the other. If we let him lie upon his back, and measure the distance from the anterior superior spine of the ilium to the tip of the internal malleolus, it turns out, indeed, that whereas the tape shows a length of 33½ inches on the right side, it indicates 35½ inches on the left. When the right foot is grasped, a moderate amount of traction easily reduces this disparity to one inch. On the other hand, when he stands with his bare feet on the floor the

difference in length is increased to three inches. As he lies there is no marked inversion or eversion of the right foot, which tends, however, when it is absolutely left to itself, to roll slightly outwards; but he can easily control this movement, and even invert his foot with the greatest ease. He can extend his right lower extremity perfectly well, but flexion of it upon the trunk is limited; other movements are easily performed. The upper and inner surface of the right thigh—Scarpa's triangle—is distinctly rounded and prominent as compared with the corresponding part in the left limb, which presents the normal hollow. Turning to the hip, the patient being still recumbent, we find that the great trochanter is as nearly as possible on a level horizontally with the ilium, being evidently carried upwards by muscular action. The neighbourhood of the hip is bulged and deformed by what examination with the hand ascertains to be a large collection of fluid in or about the hip-joint. If we lay hold of the man's thigh near the knee we can easily, with the advantage of the leverage which is thus obtained, move the bone into all sorts of positions, forcing it upwards or downwards and rotating it in or out. These movements, indeed, are very much more easily carried out, and to a greater extent, than in health. But do what we will, the other hand placed upon the swelling can discover no trace of any neck or head to the femur. The bone evidently terminates above with the great trochanter. In some of the movements, especially in rotation outwards, we are conscious of crepitus, which is sometimes much more marked than at others. The patient tells us that he often himself *feels* this crepitus in the movements of walking. Turning back now to the front of the thigh, and examining the structures below Poupart's ligament, we come upon something which is very singular. We feel a sort of narrow bony splint not wider than one's little finger, which stretches obliquely downwards and somewhat inwards for about nine inches. Above, it is pretty firmly fastened (not, however, apparently by bone) to the anterior inferior spine of the ilium, but lower down it can be easily grasped, lifted from subjacent textures, and slid loosely to and fro. When the patient extends his leg this process of bone is held tightly, so that it is evidently connected in some way with the quadriceps femoris muscle. It appears, indeed, to occupy the position of the superior tendon of the rectus. Besides all this, we note that both lower extremities are somewhat wasted, the right especially.

Here, then, is a lame man with such very palpable symptoms of a painless hip-joint disorganisation that it would seem at first sight almost needless to do more than call the case one of chronic rheumatic arthritis, with a bony growth in the neighbourhood of the joint. And if we ask the man about his past history, he tells us (as though it were ordained that no pitfall for an erroneous diagnosis should be wanting) that he has been troubled for years with "rheumatics." But let us find out what he means by this term, which is a fruitful source of error in diagnosis. The pains occurring in syphilis, scurvy, chronic alcoholism, lead-poisoning, neuralgia, as well as some other conditions, are continually styled "rheumatics." Our patient, it seems, gives the name to certain extremely sharp, sudden pains of momentary duration, which have tortured him for the last six years, with uncertain intervals, in the hips, backs of the thighs, shins, as well as in the districts of both ulnar nerves. He describes, indeed, with the greatest precision, the characteristic pains of progressive locomotor ataxia. If we let him walk again we see that, besides the lame man's gait, he staggers now and then, especially when he arrives at the end of the ward and has to make a turn. When asked to stand still he poses himself with evident effort, and the fronts of his feet are continually tilting upwards, as though his soles were so disinclined to keep the ground that without a certain amount of trouble on his part he would be likely to walk only on his heels. In walking, though he gets along at a very good pace, it is only by keeping his eyes steadily fixed on the ground before him. And we find that he cannot stand for more than two or three seconds with his eyes shut, but then staggers, and would fall. There is complete anæsthesia of both feet, and cutaneous sensibility is much blunted up to the groins. His pupils are contracted, and motionless to light.

It is unnecessary to enter into greater detail of symptoms, which combine to make up a typical case of tabes. Here, however, it may be worth while to note that the condition to which Duchenne (de Boulogne) gave the name "Progressive Locomotor Ataxia" was one which was characterised by sensory troubles—electric shock-like pains and blunted cutaneous sensibility—as well as by inco-ordinate gait, and also, although not so frequently, by affection of some motor or sensory cranial nerve, usually in the orbit. Subsequent investigation has associated cases showing this group of symptoms with sclerosis, affecting especially certain parts of the posterior columns of the cord. It is convenient enough to retain such a standard as Duchenne's for comparison, although it need hardly be said that we are frequently meeting with examples which stray away in some direction from the type—cases in which, for instance, either anæsthesia or lightning pains or cerebral nerve troubles, or even ataxia itself, may be wanting.[1] We are all agreed, indeed, I suppose, that the mere absence of a symptom does not at all necessarily exclude from the category. But for the purposes of association, as, e.g., in the present instance of joint affection, and also when inquiring into the value of Westphal's test, it is necessary, in the first instance at least, to keep to *typical* cases, as it would be manifestly inconvenient to deal with those which wandered from the type, and thus introduced an element of doubt, however small, as to their nature. This man's ataxic gait, had it existed alone, without the characteristic troubles on the sensory side, might have been open to objection as scarcely affording satisfactory grounds for a diagnosis of locomotor ataxia, considering the mechanical difficulties he is under with such a state of the hip-joint. Troubles in the co-ordination of movement alone are not safe to be depended upon as evidence of posterior sclerosis. They are seen in other conditions. There is a girl under my care in the hospital now whose gait is very ataxic. In her case there are other symptoms which tend to show that she is suffering from tumour or other gross lesion, which is probably in her pons Varolii. Ataxia may occur also in cerebellar disease and in spinal pachymeningitis. In this man, as in all the typical cases of progressive locomotor ataxia which I have yet examined, we see that blows upon the ligamentum patellæ below the knee-cap, when one knee rests upon another and the leg swings easily, fail to produce any reflex movement upwards of the foot.[2]

The man's story is soon told. He is a waiter, whose habits of life have not, by contrast, cast reproach upon other members of a calling which is notoriously exposed to the temptations of the bottle. He has suffered from syphilis. For six years he has been subject to the pains already described, but it was only eighteen months ago that he noticed that the soles of his feet were numb. A few weeks after this observation he was walking in the street when a sudden pain, described by himself (without any leading question) as being "like a shock from an electric battery," shot upwards from his right heel to his hip, and caused him to drop, it was so terribly and unusually severe. He got up immediately, and walked home, a distance of two miles, without pain, lameness, or other inconvenience. Next day he went on foot to his employment as usual, and felt nothing wrong. A few days later, however, he was taken, he says, with a "kind of fever," and there was great swelling in the right hip, which extended also down the thigh, as far as the knee-joint. It was painful. The patient's own account of this period of his history is not

[1] The opinion that we are justified in including such anomalous cases in the class was expressed in a report presented by Dr. Moxon and myself to the Clinical Society ten years since (Clin. Society's Transactions, 1869). The case reported upon was a patient of Dr. Greenhow's, and it was an example of tabes, with all the symptoms except ataxia.

[2] I may say here that amongst the cases which, although they were not *typical* examples of tabes, one had yet but little hesitation in including in the class, I have not yet seen the patellar tendon reflex preserved where *marked lightning pains in the lower extremities* were amongst the symptoms. In certain cases which I have examined, where these pains had never occurred, although the ataxia itself appeared to be very characteristic, the patellar tendon reflex remained unaffected. Whether or not this association of the occurrence of characteristic pains with the absence of patellar tendon reflex is at all constant, further experience is required to show. At present certainly, I think, as I have said in former lectures, we must be content to claim that Westphal's test (the absence of patellar tendon reflex) is the rule in *typical* cases of tabes.

very graphic, but we gather that after keeping his bed for three months he noticed that his right leg was shortened. During his confinement in bed he had suffered extremely from the shooting pains before described in the thighs and hips and right foot.

I need scarcely say that we have no right, because we meet with a disorganised hip-joint in a patient who is suffering from progressive locomotor ataxia, to jump at once to the conclusion that the joint affection is a consequence of the peculiar disease with which he is manifestly affected. An ataxic patient is not more exempt than others from the chance of being affected with rheumatoid arthritis as a coincident disorder. It is necessary therefore to compare the condition of this man's hip-joint with that which occurs in arthritis deformans, to which it bears a superficial resemblance, and to see besides how far its history is compatible with the probability of its being simply an affection of the latter kind intercurrent with tabes.

We find in this case that, so far as can be made out by careful examination, there is not a vestige remaining of the neck or head of the femur. No doubt, in arthritis deformans of *very long standing*, as a result of a gradual interstitial absorption, there is sometimes but little left of the neck of the femur, and the head may be greatly altered in size and shape; but such a condition as we observe here—the femur terminating above with the great trochanter—is not on record, so far as I know, as a result of the disease named. On the other hand, there is a photograph in Professor Charcot's Lectures,[3] which precisely pictures the state of the femur as it exists, to all appearance, in this patient. The specimen in question was taken from a female who died of aortic aneurism after presenting during many years the symptoms of progressive locomotor ataxia. On autopsy the characteristic sclerosis of the posterior columns was found. Now in the case of this woman there had been an extraordinary succession of spontaneous luxations and fractures. First the right hip-joint was found dislocated (without any history of violence), and then a few months afterwards the left. Next there came a fracture of the shaft of the left femur, and a short time later of both bones of the left forearm. Three months afterwards the right forearm is found to be fractured in its middle; a month later dislocation of the left shoulder-joint takes place. After death, amidst many other striking changes, it was found that the head and neck and a portion of the great trochanter of the right femur had disappeared. On the left side the head of the femur was wanting, and the neck existed only in a rudimentary form.

It was in 1873 that M. Charcot published particulars of this case. But some years previously to this, in 1868, he had first described the joint affection which was liable to occur in patients affected with tabes, and his observations had been confirmed by other authorities, especially and exhaustively by M. Ball. Extended experience showed that the shafts of bone, as well as the articular extremities, were liable to startling defects of nutrition. The arthropathy in question was characterised by a sudden, usually but not always painless, and often enormous swelling, which involved, not only the joint, but also neighbouring structures above and below. Puncture showed the enlargement to be due to the presence of a serous and slightly bloody fluid. There would be cracking noises in the joint on movement. Such cases would sometimes terminate in recovery, the fluid becoming absorbed, and no apparent change in the joint being left behind. In others, however, there would be a rapid destruction of the portions of bone entering into the formation of the joint.

Four years ago there was an ataxic patient under my care in this hospital, who presented in a very perfect form this sudden painless hydrarthrosis in the right knee-joint.[4] In his case the mischief appeared to be limited to a considerable amount of interference with the mechanism of the joint by the distension with fluid. In the present instance there is evidence besides of a remarkable and extensive destruction of the articulation.

In contrast with the slowness of the changes in arthritis deformans, I would draw especial attention to the extreme rapidity with which this disorganisation occurred. Within the short period of three months the joint was left apparently in the state in which we now find it. This rapidity is strongly dwelt upon by M. Charcot,[5] who expresses the opinion that the defect of nutrition, due to an influence of the nervous system which renders the bones fragile and explains the spontaneous fractures, is also one of the principal elements combining to the production of these singular arthropathies, and that the very rapid wearing away (*usure*) of the articular extremities (which is carried to an extreme degree) is the principal character which distinguishes ataxic arthropathy from arthritis deformans.

What is the meaning of the splinter of bone which in this man occupies the place of the superior tendon of the rectus femoris muscle? The patient tells us that he never observed it until after the period during which his hip-joint went wrong, and in the nature of things it is very unlikely that he could have overlooked the existence of such an encumbrance.

There would seem, then, to have been an ossifying myositis going on in the immediate neighbourhood of a joint, which was the seat of changes having for their result the rapid destruction or wearing away of bone. It is an interesting fact, in relation to this apparent anomaly, that in cases of spontaneous fracture dependent upon locomotor ataxia a more than usually abundant callus has been observed to be thrown out about the broken extremities. At first sight, the excessive production of bone under such circumstances might appear to militate rather strongly against the view that it was a neurotic cause which occasioned the modification of nutrition leading to fracture. It will be remembered, however, that, after experimental nerve-sections (either imperfect or in some way causing irritation of the nerve?), Mantegazza observed not only hyperplasia of connective tissue and periosteum, but also formation of osteophytes.

We may take it then, I think, that, however strong the superficial resemblance may be, this man's case really differs widely from one of chronic rheumatic arthritis. To some indeed it may appear superfluous to insist at all upon the points of differential diagnosis. But this is not so. The patient, before he came to Queen-square, was for some time in a surgical ward of a metropolitan hospital under treatment for chronic rheumatism; and I have reason to know that he was not long since submitted to candidates for their diploma at an examining board as an example of rheumatoid arthritis. The fact that he is a typical example of progressive locomotor ataxia had remained hidden behind the very prominent lesion of his hip-joint.

[3] Leçons sur les Maladies du Système Nerveux, fasc. iv., planche x.

[4] See a Clinical Lecture on "A Case of Progressive Locomotor Ataxy, with anomalous Joint Affection," THE LANCET, August 22nd, 1874. To avoid recapitulation as far as practicable, several points referring to the pathology of the condition, which were dwelt upon in that lecture, are omitted from the present.

ON CHRONIC BRIGHT'S DISEASE, AND ITS ESSENTIAL SYMPTOMS.

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(Continued from page 47.)

BEFORE proceeding to the symptoms which are present, it is necessary to dwell for a moment upon the symptoms which I affirm to be absent in chronic Bright's disease—the albuminuria and the dropsy; for the causation of these symptoms appears to me to throw much light upon the pathology of Bright's disease, whether it be acute or chronic, and it will have to be alluded to frequently hereafter. I have elsewhere given reasons for believing that albuminuria is produced mechanically[1], and that it is simply the result of increased blood-pressure, in most cases. The albumin of the blood does not dialyse through animal membranes under ordinary atmospheric pressure, but it does do so when the pressure is increased beyond a certain point. Runeberg[2] has lately made some important experiments on the dialysis of various forms of albumin; from one series of experiments (and these results are perhaps the most certain of any which he has obtained) he clearly lays down the law that the rate of filtration for all albuminous bodies

[5] Arch. Phys., Paris, 1874.

[1] Transactions of the R. Medico-Chir. Soc. 1874, and Practitioner 1875.

[2] Runeberg, "Die Filtration von Eiweisslösungen durch thierische Membranen." Archiv für Heilkunde, xviii., p. 1.

sinks or rises with the amount of pressure employed, but it does not stand in exact proportion to it; it increases less as the pressure becomes higher. Under normal blood-pressure the albumin does not dialyse, but under increased blood-pressure it appears to do so, for the circumstances under which we see albuminuria are nearly always those of increased blood-pressure, either arterial or venous.

In Bright's disease I have shown[3] that the arterial pressure is *first* increased; when it arrives at a certain intensity albuminuria ensues; in heart disease, pneumonia, and in fevers, when albuminuria is present, it is the result of increased venous pressure. The pressure in the veins is, of course, lower than that in the arteries, but their walls are thinner, and therefore permit dialysis under lower pressure than those of the arteries. Albuminuria may be produced experimentally by increasing the pressure in either arteries or veins, as by ligaturing the abdominal aorta, or constricting the renal veins or inferior cava.[4] There are some cases of albuminuria which do not appear to come under either of these headings. I have called them cases of arterio-venous albuminuria; they are seen frequently during the recovery from Bright's disease, when the pulse has become soft, but the albuminuria remains persistent. These cases are probably due to the vessels in the kidney becoming over-distended or varicosed by high arterial pressure, and thus losing the power to contract and recover their normal tone. This may occur throughout the whole organ; or it may be limited to a small area which has not recovered as perfectly as the rest, and may thus make the whole bulk of the urine albuminous, though without producing any other ill-effect upon the patient.

Of a similar nature possibly are the cases of intermittent albuminuria described by Dr. Moxon[5] as occurring in young adults, also those observed by Sir W. Gull and the remarkable case of intermittent albuminuria in an anæmic young lady described by Dr. Morley Rooke,[6] in which the albumin always disappeared when the patient assumed the recumbent posture. It has been suggested in these cases that the albuminuria depends upon the mechanical pressure in the capillaries and glomerules from relaxation or atony of the vessels. Dr. Moxon suggests its connexion with the activity of the allied sexual functions. It would be interesting, however, to know more about the chemical characters of the urine in these cases. Another very important series of cases of temporary albuminuria in adolescents has been recorded by Dr. Clement Dukes,[7] but to these he has ascribed a different origin; he considers them to be due to increased arterial pressure, and similar in their nature to the condition which I have proved to occur during pregnancy (in the paper already alluded to), and to be the most probable cause of albuminuria and convulsions in this condition (these observations were subsequently confirmed by Dr. Fancourt Barnes,[8] and were accepted as true by Dr. Robert Barnes, who alludes to them in the address before the British Medical Association in 1877, to which Dr. Dukes calls attention). The cases described cannot, however, be unreservedly accepted as belonging to this class, unless sphygmographic evidence can be adduced to prove the character of the pulse. Such observations would be most valuable if Dr. Dukes can obtain them in some similar cases, for his theory of increased vascular tension occurring at puberty is certainly an interesting one, and is most important if it can be proved to be true. As far as my own experience with the sphygmograph goes it does not support it, for more commonly the tension about puberty is low rather than high.

Yet other cases there are which are not due to a mechanical, but to a chemical cause. These chemical albuminurias have lately been investigated by Dr. Lauder Brunton and Mr. D'Arcy Power,[9] to whose excellent account of them I must refer my readers. Briefly, these results may be summarised as follows:—Following Hoppe-Seyler, they divide the albuminous bodies which appear in the urine into eight groups: 1, Albumins; 2, Globulins; 3, Fibrins; 4, Albuminates; 5, Acid albumins or syntonin; 6, Amyloid material; 7, Coagulated albuminous bodies; 8, Peptones. Of these, Nos. 3, 6, and 7 occur as solids, and do not concern us. The other five groups may be classed under three headings: 1. Albuminous bodies coagulated by boiling—i. e., albumins and globulins. 2. Albuminous bodies with acid or alkalies not coagulated by boiling. 3. Includes peptones, those neither coagulated by heat nor precipitated by neutralisation, but precipitated by alcohol. Various writers have shown that certain albuminous bodies may be absorbed from the gastro-intestinal canal, which cannot be retained in the blood, and are excreted unchanged by the kidneys. Stockvis has demonstrated this with regard to egg-albumin; Bence-Jones with regard to another form of albumin, probably belonging to the class of met-albumins, and often known as Bence-Jones's albumin. It is readily soluble in excess of nitric acid. Parkes[10] remarked the increase of albumin in the urine of patients suffering from Bright's disease after food; while Gubler[11] found that vegetable diet decreased the amount of albumin to a minimum in Bright's disease, while an albuminous diet increased it. These observations were confirmed by Pavy, who also was the first to demonstrate differences in the dialysis of various albumins.[12] The authors of this paper have also shown that the temperature at which albumins coagulate may, to some extent, be accepted as an indication of their origin, and that albumin excreted after food *generally* coagulates at a lower temperature than that excreted after fasting.

It is not very uncommon to meet with these cases of chemical albuminuria in practice; they generally give rise to much anxiety, as the patient is thought to be the subject of Bright's disease. They can be distinguished from this condition, however, not only by the chemical reactions of the albumin, its rapidity of dialysis, and coagulation at low temperatures, but also by the absence of high arterial tension. Such cases may live for years, constantly passing albumen in their urine, but apparently in no respects the worse for it; their hearts do not hypertrophy, nor have they any other symptom of Bright's disease. Frequently they may be cured by attention to the digestive functions and appropriate treatment.

To return, however, to the consideration of the important symptom. The dropsy of acute Bright's disease can also, I think, be explained by increased arterial pressure; it has probably other factors which increase it—namely, anæmia, and the low specific gravity of the serum. Like the albuminuria, it may be arterial, venous, or arterio-venous, according to the position of the increased pressure. Thus in heart disease there is venous dropsy; in cirrhosis of the liver, portal dropsy; in anæmia, arterio-venous dropsy; and in acute Bright's disease, arterial dropsy; in all of which we trace the occurrence of increased blood-pressure in a certain set of vessels. These explanations are extremely simple in their nature, and appear to me manifestly true. They can all alike be brought about experimentally. Thus it has been shown frequently that ligature of a vein, or division of the vaso-motor nerves of an artery of a limb causing dilatation of, and therefore increased pressure in, it, each produces œdema in the limb. Moreover, disease repeatedly performs experiments for us, both with regard to dropsy and albuminuria, under circumstances of great simplicity, which often can be varied at will; these will readily suggest themselves to the mind, but cannot now be dwelt upon at length, such as pressure on renal veins, plugging of femorals, vaso-motor paralysis in a paralysed limb, producing œdema and many other conditions.

Assuming these views to be true, it may be asked, Why do not albuminuria and dropsy occur in chronic Bright's disease much more than in acute, seeing that the arterial pressure is highest in this condition? One need not go far to find a reason; it immediately presents itself. The rise of pressure in chronic Bright's disease is essentially a very gradual one. The disease is of a most insidious nature; day by day, year by year, the arterial pressure is very gradually but very steadily rising, and coincidently with this rise there is a similarly slow and gradual thickening of the vessels and hypertrophy of the heart. If a certain thickness of vessels is required to withstand a given arterial pressure, it will necessarily require a greater thickness to withstand a greater pressure. So also with the heart; if it requires a given amount of muscle to carry on the circulation under a given pressure, increase the pressure, and you must increase the amount of muscle required to overcome it. These hypotheses must be true; every piece of evidence that can be obtained from physiology and pathology bearing upon the

[3] Loc. cit.
[4] Stockvis "Sur l'Albuminurie."
[5] Guy's Hospital Reports, 1878.
[6] British Medical Journal, Oct. 19th, 1878.
[7] Ibid., Nov. 30th, 1878.
[8] Transactions of the Obstetrical Society, vol. xvi., 1875.
[9] St. Bartholomew's Hosp. Reports, 1877.
[10] Med. Times and Gazette, April 10th 1852.
[11] Société de Biologie, August 6th, 1853.
[12] Gulstonian Lectures for 1862, vide THE LANCET, May 23rd, 1863.

point supports this view. If this is so, the balance between thickness of walls and arterial pressure is maintained; the one increases in the same proportion as the other, and albuminuria does not ensue. Very different is this from the case of acute Bright's disease, where the arterial pressure rises rapidly or suddenly before the vessels have time to thicken, and out comes the albumin. So, at any time, if in chronic Bright's disease an exacerbation of the disease occurs, the blood-pressure rapidly rises and albuminuria ensues. Probably in this condition the albumin is always much nearer transudation-point than in the healthy kidney, and therefore slight variations, produced by many causes, suffice to bring it through. Albuminuria is therefore frequently seen in chronic Bright's disease, and so comes to be called a symptom of it, but it is not an *essential* one; the disease may, and commonly does, exist without it; it is only due to an exacerbation of the disease, or, in other words, an approach to its acute form. This may be said to be mere carping at words, but it is not; the recognition of this fact, we shall see hereafter, will throw light on the true nature of the disease and its identification.

It remains to make a few remarks on the history of high arterial tension and its recognition. The earliest writers on the subject have always recognised the occurrence of hypertrophy of the heart and thickening of the arteries, together with a hard pulse, in chronic Bright's disease. Dr. Burdon-Sanderson and Dr. Sibson appear to have been the first, as far as I can discover, to demonstrate by means of the sphygmograph the high arterial tension which exists in this condition. Dr. Broadbent proved that the hard pulse and the high tension were not mere results of the thickened arteries, but were functional conditions due to the conditions of the circulation and to some impediment in the blood-flow. He proved that they were not the essential result of the thickening of the arteries, by demonstrating the softening of the pulse by the use of nitrite of amyl, produced in a man suffering from chronic Bright's disease and with very high arterial tension; the tracings showed that by the use of the drug his arteries were relaxed, the arterial tension changed from very high to comparatively low, and the pulse became large, soft, and dicrotic. This experiment was of the utmost importance, because it went far towards proving that the high arterial tension was a functional condition and the cause of the thickening of the vessels and the hypertrophy of the heart, instead of being caused by them.

Thus far our knowledge of this condition was limited to chronic Bright's disease. Dr. Galabin was the first to definitely record the fact that the same condition prevailed in acute Bright's disease, in his most admirable thesis "On the connexion of Bright's Disease with changes in the Vascular System" (1873). In the paper already alluded to, published in the Transactions of the Medico-Chirurgical Society, I demonstrated that the condition of high arterial tension was the *precursor of any other symptom;* that it occurred as the immediate result of the condition of blood-poisoning, which produces or tends to produce Bright's disease; that if checked on its first appearance no symptoms of kidney disease ensued, but if neglected it was invariably followed by them. I made my observations chiefly on the acute form of the disease, as seen following scarlet fever, but I proved that it held good for other and more chronic forms, that the high tension resulted also from the poisoned blood in pregnancy, lead-poisoning, gout, alcohol, and other well-known causes of Bright's disease, and that it was in all cases the great guide to treatment; and, moreover, I argued from these facts that it was a probable indication of the existence of arterio-capillary fibrosis.

Dr. Broadbent has long recognised the great importance of this condition of arterial tension, and in some most valuable clinical lectures on the "Pulse,"[13] he has very carefully described the pulse of high arterial tension amongst others, and has insisted on the extreme importance of its recognition as an assistance to diagnosis, prognosis, and therapeutics. In these lectures he narrates three cases in which he has foretold attacks of cerebral hæmorrhage by the pulse, predictions which he saw in each case fatally fulfilled. I believe these are by no means the only cases in which he has been able to make, and has seen verified, such predictions. In the following year Dr. Handfield Jones pointed out the value of the sphygmograph in diagnosing the condition known as arterio-capillary fibrosis,[14] quoting several cases in which he had diagnosed the disease by this means, when no other symptoms were present. I also gave some further examples[15] of cases in which I surmised the existence of this disease from the state of the pulse, and insisted on the importance of this symptom, in some remarks made before the Pathological Society.

(To be continued.)

[13] THE LANCET, Sept. 25th, Oct. 16th, 23rd, and Dec. 25th, 1875.

[14] "Some Experience of the Sphygmograph in Medicine," THE LANCET, Feb. 19th, 26th, 1876.

[15] THE LANCET, Aug. 18th, 1877.

ON EXTERNAL URETHROTOMY.

BY G. B. MORGAN,
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THE external division of the male urethra may either be done as an operation considered to be expedient or it may be imperatively demanded to save life.

In 1844 Mr. Syme communicated to the *Edinburgh Medical Journal* a paper in which he described a form of urethral stricture in which, although a very small instrument may be passed through it, no progress is made in getting it dilated. Constitutional disturbance, with rigors and suppuration, follow the introduction of an instrument, or it is found that after dilatation the dense tissue recontracts; and the patient, after weeks of treatment, is still suffering as at first. In these cases Mr. Syme proposed to divide the stricture through the perineum, having first introduced a slender grooved staff as a guide upon which to cut. This operation, in suitable cases, and with sedulous care afterwards, gives very satisfactory results, and is not difficult of performance. But sometimes we meet with cases where it is impossible to pass the very smallest instrument, where the urine is distilled drop by drop, either through the urethra or some collateral fistula, and even that only after the most agonising expulsive efforts, where the swollen face, protruding eyeball, and conjunctiva stained with blood, show how violent and how sustained the effort has been, while during sleep the stinking urine drains from the overdistended bladder, soaking the bed, and making life miserable. Early in these cases, which are often cases of traumatic stricture, extravasation sometimes occurs; but later, when they have become chronic, it is wonderful the amount of hydraulic pressure which the tissues become capable of sustaining.

Now it is in these cases that operative interference is so imperatively demanded, and is at the same time so difficult of performance. If you cannot get a guide into the bladder, you must dissect out the urethra behind the stricture without a guide, and no one who has not himself done the operation can estimate its great difficulty. Sir Henry Thompson says: "In reference to perineal section, or the operation without a guide, the best that can be said of it is that it is a hazardous proceeding. No surgeon should entertain the idea of performing it except after thoroughly assuring himself that the stricture cannot be rendered permeable to instruments, and so made amenable to treatment in some other way. In a few cases the operation is performed successfully, but in most there can be little doubt that the route of the stricture itself is not followed, and that the knife makes a new channel through adjacent and often unsound tissues, very inadequate to perform subsequently the function of a urethra; and in many instances the attempt to make a channel to the bladder has wholly failed, and the patient has been removed from the table unrelieved, and in not a few cases the result has been fatal."

Mr. John Coulson was, I believe, the first to devise the following operation, which is now generally practised. It has been improved upon by Dr. Gouley, of New York, and attention has been drawn to it by Mr. Teevan:—The patient having had the rectum cleared, and the perineum shaved, is to be put into the lithotomy position, and placed under chloroform. A straight staff, with a groove running to within half an inch of the end, and terminating in a button, is passed down to the stricture. The urethra is opened upon this groove, *not upon the point of the staff.* The staff is then

made to protrude, and the button hitched in the upper end of the wound, so as to enable the assistant to hold up the urethra by it. The edges of the opened canal are held apart by toothed forceps, and the operator proceeds to search in the cul de sac for the mouth of the stricture, by means of very fine whalebone probes. These should be olive-tipped, but there is difficulty in getting them properly made in England. Having found a passage, a fine silver tube is passed over the whalebone, and if the whalebone has been in the bladder urine will flow through the tube. The stricture is then divided upwards with a tenotome, directed by the slit in the tube, and then one half of an elastic catheter is passed into the bladder upon the tube, and the other half having been passed through the meatus, the two parts of the instrument are united by a screw-joint, and the patient is removed to bed.

The advantages claimed for this operation are:—1. The greater chance of finding an entrance to the stricture with a fine olive-tipped bougie, applied close to the face of the stricture. 2. The demonstrating that the bougie is really in the bladder, by passing over it a fine silver tube, and drawing off the urine, and so saving the mortification of laying open a false passage. 3. The metal tube serves as a guide for the passage of a catheter over it. 4. Diminishing the risk by dividing the stricture subcutaneously, instead of enlarging the original wound.

No doubt these advantages are great, and the operation should always be attempted in preference to perineal section, but the two cases which I now proceed to narrate show that sometimes it is impossible to find a passage through the stricture, and in one case the patient was saved by perineal section, while in the other success was obtained by utilising a fistulous opening.

Mr. M——, aged forty-three, formerly a mariner, a thick-set and strongly-built man. Twenty years ago he fell on board ship and came astride upon a hatchway, the sharp edge striking the perineum with great force. He passed water with great difficulty for some days afterwards, and lost a good deal of blood. The difficulty in making water abated, and he returned to work, but four or five months after he was obliged to enter the *Dreadnought* Hospital with tight stricture. Here an instrument was passed and left in the bladder, but two days afterwards extravasation of urine occurred, requiring free incisions for its relief. Some of these incisions have continued as fistulæ ever since, and the urine has come through them as well as through the proper channel. This latter, however, has become less and less, and four years ago, when he was first seen by me, only a very slight moisture was perceptible at the meatus when he attempted to pass water. His state then—January, 1874—was one of great suffering. Sometimes he would strain for hours, until his face was swollen and livid and the eyes suffused with blood, before a few drops of stinking urine would exude from some of the fistulous openings and give him temporary relief. The perineum was riddled with openings and scarred with cicatrices; on each side of the anus were the marks of deep incisions; on the inner surface of the right thigh were two openings, and three more existed between the anus and scrotum. Marital intercourse had become so painful that it was unbearable. The prostate could be felt much enlarged.

Patient and prolonged attempts were made to pass an instrument through the stricture, but without success; and at this time nothing more was done than administering opium occasionally and directing the frequent use of the hip-bath.

During the next two years and a half he dragged on a very miserable existence, confined to his room and often to his bed, for he found that the slightest cold made all his sufferings worse. On two occasions during this time it was found necessary to tap the bladder through the rectum with an aspirator needle, to relieve his intolerable agony.

In November, 1876, his sufferings had become so great that he became most urgent in his entreaties for something to be done for him; and, having explained to him the great risk of the operation, I consented to attempt his relief.

He was prepared as for lithotomy, and a director passed down to the stricture. Upon this the urethra was opened, and most patient attempts made to find any passage through it. These attempts were continued for more than two hours, so unwilling was I to resort to perineal section—that is, dissecting out the urethra beyond the stricture without a guide; for in his case this operation, always uncertain and difficult, would have been almost impossible, from the seamed and scarred state of the perineum. Having failed to enter the stricture, I determined to try if access to the bladder could not be obtained through any of the fistulæ, and, to my great relief, I was at length able to pass the whalebone guide through an opening to the left of the raphé and along a tortuous passage into the bladder; upon it I passed the silver director, and freely divided the tissues, so that a full-sized instrument could be passed into the bladder. At the time I contemplated a further operation when he had recovered from the prolonged one, but I have found so much reason to be satisfied with what we have gained that I am only too thankful to leave well enough alone. The relief is complete to all the symptoms, and, with the exception of the pain which the passing of some small stones through the new channel has caused, he has had no suffering since the operation. When I felt with the probe that these stones were stuck in the passage, I introduced a sea-tangle tent, and left it for a few hours, and when it was withdrawn the stones came with the gush of urine. Coition is no longer painful, the semen coming through the new channel. The character of the urine is no longer bloody and ammoniacal, and he has perfect control over the bladder. Once a fortnight a bougie is passed, as the skin opening has a tendency to close. From the bedridden condition of a confirmed invalid, whose every waking hour was one of suffering, he is restored to his business and to the enjoyment of his life.

Mr. T——, aged sixty, a master mariner, came to me on July 16th, 1877, complaining of incontinence of urine, his clothes in the day and his bed in the night being soaked; while he had the greatest difficulty in micturition. His constant straining had produced hernia of the bowel on the left side. He had been a man of somewhat dissipated habits, and stated that about thirty years ago he remembered having an attack of complete retention, which was only relieved with great difficulty by the passage of an instrument on the third day. Since then there had never been complete retention, but year by year the stream had become smaller, and within the last two years the urine had been voided drop by drop, and stillicidium urinæ had become constant. The character of the secretion was ammoniacal and mixed with glairy mucus. The glans penis had several scars upon it, and one cicatrix occupied the site of the meatus, which it had so narrowed that a No. 5 entered with difficulty; beyond this the urethra was narrowed at two points—one about two inches within, and again in front of the membranous portion of the urethra.

He was confined to bed, and placed upon milk diet, with small doses of opium; and day after day attempts were made to penetrate the stricture, but without any success. His condition improved somewhat from the rest and restricted diet, and the stillicidium was greatly lessened as the urine became less acrid; but it was found impossible to enter the bladder. An attempt was made by passing potassa fusa down to the face of the stricture to overcome it; this, however, not only failed, but seemed to increase the difficulty of micturition.

On Aug. 30th he was placed under chloroform, and the operation of Mr. Coulson attempted. He was prepared as for lithotomy, the director passed to the stricture, the urethra opened upon it, and the mouth of the stricture patiently sought for with the whalebone bougies and also with fine silver probes. For two hours on this, the first day, and for a similar time on the day following, these attempts were continued, and were at length with great reluctance abandoned. A day was allowed to intervene, and a third time he was placed under chloroform, and the urethra carefully dissected out, and after some difficulty opened behind the stricture. The latter was then laid open, and the pointed catheter passed into the bladder and out through the meatus. That was on Sept. 2nd. For a few days a catheter was passed daily, then every second day, then once a week, and now (Oct. 31st) the wound is healed, and he passes for himself a flexible bougie, and micturates in a full stream without pain or difficulty. To use his own words, he is a new man, and is comfortable for the first time for twenty years.

DONATIONS ETC. TO MEDICAL CHARITIES.—The York County Hospital, and the York Dispensary have each received £455 2*s.* 6*d.* under the will of Mr. George Wright, of York. The Sea-Bathing Infirmary, Margate, has become entitled to £100 under the will of Mrs. Charlotte Anne Hodgson, of Oakside, Surbiton. Her Majesty has given 100 guineas to the Queen's Hospital, Birmingham.

NITRO-GLYCERINE AS A REMEDY FOR ANGINA PECTORIS.

By WILLIAM MURRELL, M.R.C.P.,

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SOME twenty years ago a controversy took place in the pages of the *Medical Times and Gazette*, on the properties, physiological and therapeutical, of the substance known to chemists as nitro-glycerine. The discussion was opened by Mr. A. G. Field, then of Brighton, who described in detail the symptoms he had experienced from taking two drops of a one per cent. solution of nitro-glycerine in alcohol. About three minutes after the dose had been placed on his tongue he noticed a sensation of fulness in both sides of the neck, succeeded by nausea. For a moment or two there was a little mental confusion, accompanied by a loud rushing noise in the ears, like steam passing out of a tea-kettle. He experienced a feeling of constriction around the lower part of the neck, his forehead was wet with perspiration, and he yawned frequently. These sensations were succeeded by slight headache and a dull, heavy pain in the stomach, with a decided feeling of sickness, though without any apprehension that it would amount to vomiting. He felt languid and disinclined for exertion, either mental or physical. This condition lasted for half an hour, with the exception of the headache, which continued till the next morning. These symptoms Mr. Field describes as resulting from a single dose of one-fiftieth of a grain. Thinking that possibly he might be unusually susceptible to the action of the drug, he induced a friend to take a dose. The gentleman experienced such decided effects from merely touching his tongue with the cork of the bottle containing the nitro-glycerine solution that he refused to have anything more to do with it. A lady suffering from toothache, on whose tongue Mr. Field placed about half a drop of the same solution, experienced a pulsation in the neck, fulness in the head, throbbing in the temples, and slight nausea. The toothache subsided and she became partly insensible, disliking much to be roused. When fully sensible she had a headache, but the toothache was gone. Another of Mr. Field's patients, a stout, healthy young woman, accidentally swallowed a small piece of lint dipped in the nitro-glycerine, whilst being applied to a decayed tooth. In about five minutes, after feeling giddy and sick, with headache, she became insensible. Her countenance, naturally florid, was unaltered, breathing tranquil, pulse full, and rather quickened. She recovered in about three minutes, after the administration of a stimulant. Some headache was complained of, but the toothache was gone. Mr. Field, in conclusion, offered some suggestions as to the therapeutical uses of the drug, and stated that he had not met with a single well-defined case of neuralgia or spasmodic disease in which it had failed to afford some relief.

This paper was followed by a letter from Dr. Thorowgood, in the main confirmatory of Mr. Field's observations. He, after taking a small dose, experienced "a tensive headache over the eyes and nose, extending also behind the ears, and soon followed by a tight, choking feeling about the throat, like strangulation. Neither loss of consciousness nor nausea was experienced, and a walk by the sea soon did away with the unpleasant feeling."

These statements did not long remain unchallenged, their accuracy being called in question by Dr. George Harley, of University College, and Dr. Fuller, of St. George's. Dr. Harley, having obtained some nitro-glycerine of the same strength as Mr. Field's, commenced his observations by touching his tongue with the cork of the bottle containing the solution. He experienced "a kind of sweet and burning sensation, and soon after a sense of fulness in the head, and slight tightness about the throat, without, however, any nausea or faintness." After waiting a minute or two these effects went off, and Dr. Harley was inclined to think "they were partially due to imagination." Determined, however, as he says, to give the drug a fair chance, he swallowed five drops more, and as this did not cause any increased uneasiness, he took, in the course of a few minutes, another ten drops of the solution. Being at the time alone, he became alarmed lest he should have taken an over-dose, and very soon his pulse rose to above 100 in a minute. The fulness in the head and constriction in the throat were, he thought, more marked than after the smaller dose. In a minute or two the pulse fell to 90, but the fulness in the head lasted some time, and was followed by a slight headache. To two medical friends Dr. Harley administered respectively twenty-eight and thirty-eight drops in divided doses without the production of any symptoms. Some pure nitro-glycerine was then obtained, and of this Dr. Harley took, in the course of a few minutes, a drop, equivalent to a hundred drops of the solution previously employed. The only symptoms produced were a quickened pulse, fulness in the head, and some tightness in the throat; but as these passed off in a few minutes, Dr. Harley considered that they were probably the effects of "fear and imagination." On a subsequent occasion he took, in the course of three-quarters of an hour, a quantity of the nitro-glycerine solution equivalent to 199½ drops of the solution used by Mr. Field, with the production of no more disagreeable symptoms than those he had experienced in his former trials. The quickening of the heart's action he ascribed to fear, but the head and neck sensations were, he considered, "too constant to be attributed to the same cause," although he thought they were exaggerated by the imagination. Dr. Harley, in conclusion, states that he experimented on ten different gentlemen with nitro-glycerine solution, obtained from four different sources, without witnessing any dangerous effects when administered in the above doses; but he adds that, if taken pure, great caution should be used.

Dr. Fuller, whose observations were made in conjunction with Dr. Harley, commenced by taking two drops of a one per cent. solution. In the course of a minute he felt, or "fancied he felt," some fulness in the head, but was not conscious of any other unusual sensation. A little later he took one-sixth of a drop of pure nitro-glycerine, equivalent to about seventeen drops of the solution spoken of by Mr. Field. Two minutes later his pulse had risen to 96, and there was an increased fulness about the head, but without giddiness or confusion of thought. The pupils were not affected, and he did not experience any unusual sensation beyond that already mentioned. A quarter of an hour later he took a dose equal to 33⅓ drops of Mr. Field's solution, and a few minutes later another dose equivalent to 50 drops. He felt somewhat nervous, and for a few minutes the surface of the body was covered with a clammy perspiration; his pulse intermitted occasionally, and he experienced an increase of fulness about the head. Whether the acceleration of the pulse observed in the first instance was attributable to the effects of the drug he was unable to decide, but his own impression was that it was merely the result of nervousness and excitement; for, had it been otherwise, it is not likely, he says, "that the pulse would have fallen to its natural standard within so short a period after taking the larger doses." The fulness in the head might, he considered, have been attributed in part to the same cause, but a sense of discomfort in the head lasting some hours was, he thought, really due to the drug. As the result of these observations, Dr. Fuller concluded that nitro-glycerine was incapable of producing the effects that had been ascribed to it, and that it might be taken with impunity in considerable quantity.

In a second communication to the same journal Mr. Field reasserted the correctness of his observations, and maintained that a reasonable explanation of the very different results obtained by different observers might be found in the great variation in strength to which the drug is liable. He considered, too, that the conditions under which the drug was taken had much to do with its action. When the system is worn out by fatigue, he says, it is more likely to act powerfully than when taken under less unfavourable conditions. On the occasion of taking the dose which produced in him such startling effects, his nervous energy had been impaired by an unusually hard day's work. He found that under more favourable conditions he could take the same dose with the production of nothing worse than headache. Having in his experiments on himself experienced the greatest variation in the strength of different specimens of nitro-glycerine, he was disposed to think, on reading the account given by Dr. Fuller and Dr. Harley, that they had used a less powerful agent. He accordingly called on Dr. Fuller, and induced him to take a dose of the solution he had used, but, to his surprise, he experienced little beyond headache. On the same day Mr. Field administered to a

hospital patient suffering from hemicrania two drops of the solution. In about a minute he became pallid, felt sick and giddy, his forehead was covered with perspiration, and he sank on the bed by which he was standing almost unconscious, his pulse failing so as scarcely to be felt. After the administration of a little ammonia the circulation became more vigorous, and in twenty minutes there was a marked diminution of the pain, and he experienced a great desire to sleep, a luxury of which his sufferings had almost deprived him on previous nights. Mr. Field administered small doses of the drug to several other people, all of whom were distinctly affected by it.

Mr. Field's observations respecting the activity of the drug were also confirmed by Mr. F. Augustus James, a student of University College. He took a single drop of the one per cent. solution. In the course of a few minutes he experienced a sensation as if he were intoxicated. This was quickly followed by a dull aching pain at the back of the head, which was alternately better and worse, each accession becoming more and more severe. It soon extended to the forehead and the back of the neck, in which there was a decided feeling of stiffness. He also experienced some difficulty of deglutition, succeeded by nausea, retching, and flatulence. A profuse perspiration ensued, and in a quarter of an hour the symptoms began to abate, but he continued dull and heavy. His pulse, he found, had risen from 80 to 100. Considerable headache remained, which increased in the after part of the day, so that at six o'clock he was compelled to go to bed. At break of day he was not relieved, but after a few hours' more sleep he felt quite well again.

Mr. G. S. Brady, of Sutherland, obtained very decided results from the administration of large doses of nitroglycerine to a lady suffering from severe facial neuralgia. He gave two minims and a half of Morson's five per cent. solution in a little water. In the course of two or three minutes she began to complain of sickness and faintness; these rapidly increased; there was for a few minutes unconsciousness accompanied by convulsive action of the muscles of the face, and stertorous breathing. After swallowing some brandy-and-water, she vomited, and the unpleasant symptoms gradually subsided. Mr. Brady also mentions the case of a relative of his, a chemist, who took a drop of the five per cent. solution in water. Shortly afterwards a feeling of sickness and pain at the epigastrium came on, and he left his desk to pace about the shop, thinking to walk off the uncomfortable sensations. Instead of this, they grew worse, and an intolerable sense of oppression and swimming in the head, with spasmodic twitching of the limbs, supervened. He had barely time to call his assistant when he fell back insensible. Cold water was freely dashed over the face, and the unconsciousness soon passed away. No vomiting ensued, but the sensation of sickness lasted for some time.

Being greatly interested in this curious controversy, and being quite at a loss to reconcile the conflicting statements of the different observers, or arrive at any conclusion respecting the properties of the drug, I determined to try its action on myself. Accordingly I obtained some one per cent. solution. One afternoon, whilst seeing out-patients, I remembered that I had the bottle in my pocket. Wishing to taste it, I applied the moistened cork to my tongue, and a moment after, a patient coming in, I had forgotten all about it. Not for long, however, for I had not asked my patient half a dozen questions before I experienced a violent pulsation in my head, and Mr. Field's observations rose considerably in my estimation. The pulsation rapidly increased, and soon became so severe that each beat of the heart seemed to shake my whole body. I regretted that I had not taken a more opportune moment of trying my experiments, and was afraid the patient would notice my distress, and think that I was either ill or intoxicated. I was quite unable to continue my questions, and it was as much as I could do to tell him to go behind the screen and undress, so that his chest might be examined. Being temporarily free from observation, I took my pulse, and found that it was much fuller than natural, and considerably over 100. The pulsation was tremendous, and I could feel the beating to the very tips of my fingers. The pen I was holding was violently jerked with every beat of the heart. There was a most distressing sensation of fulness all over the body, and I felt as if I had been running violently. I remained quite quiet for four or five minutes, and the most distressing symptoms gradually subsided. I then rose to examine the patient, but the exertion of walking across the room intensified the pulsation. I hardly felt steady enough to perform percussion, and determined to confine my attention to auscultation. The act of bending down to listen caused such an intense beating in my head that it was almost unbearable, and each beat of the heart seemed to me to shake not only my head, but the patient's body too. On resuming my seat I felt better, and was soon able to go on with my work, though a splitting headache remained for the whole afternoon. Were my symptoms due to nervousness or anxiety? Certainly not. I will not say that I discredited Mr. Field's observations, but after Dr. Harley's positive assertions I certainly did not expect to obtain any very definite results from so small a dose. Moreover, at the moment of the onset of the symptoms I was engaged in the consideration of another subject, and had forgotten all about the nitro-glycerine. I did nothing to intensify the symptoms, but, on the contrary, should have been only too glad to have got rid of them. The headache, I can most positively affirm, was anything but fancy. Since then I have taken the drug some thirty or forty times, but I never care to do so unless I am quite sure that I can sit down and remain quiet for a time, if necessary. It uniformly produces in me the same symptoms, but they are comparatively slight if I refrain from moving about or exertion of any kind. The acceleration of the pulse is very constant, although sometimes it amounts to not more than ten beats in the minute. The temperature remains unaffected. The pulsation is often so severe as to be acutely painful. It jerks the whole body so that a book held in the hand is seen to move quite distinctly at each beat of the heart. The amount of pulsation may be roughly measured by holding a looking-glass in the hand and throwing the reflection into a dark corner of the room. Before taking the drug the bright spot may be kept steady, but as soon as the pulsation begins it is jerked violently from side to side. I have taken all doses from one minim to ten, sometimes simply dropped on the tongue, at others swallowed on sugar or in water. I have not ventured to take more than fifteen minims in a quarter of an hour. Once or twice a ten-minim dose has produced less pulsation than I have experienced at other times from a single drop; but then with the larger quantity one is careful to avoid even the slightest movement. After a five-minim dose I usually experience a certain amount of drowsiness—a lazy contented feel, with a strong disinclination to do anything.

(To be continued.)

SECTION OF THE CORNEA IN HYPOPYON KERATITIS.

BY A. EMRYS-JONES, M.D.,
RESIDENT SURGEON, MANCHESTER ROYAL EYE HOSPITAL.

CONSIDERABLE discussion has recently taken place as to the value of the above method of treatment, introduced into ophthalmic surgery by Dr. Saemisch in 1871. During the last two years I have taken especial interest in the subject, and have carefully recorded notes of thirty-five cases which occurred in the practice of this hospital, to the medical officers of which I am greatly indebted for valuable assistance in the inquiry; and I now propose to mention briefly the results, as well as the practical remarks that have suggested themselves to my mind during the course of treatment. Saemisch gives this form of traumatic ulcer the name of Ulcus corneæ serpens. The history the patient generally gives is, that he has been struck in the eye with a piece of iron chipping or some other foreign body, and has suffered intense pain, from which he can get no relief. On examination, a small ulcerated cavity, filled with suppurative débris, is found at one spot, with irregular and extending margins and surrounded by a halo of diffuse cornea; a quantity of pus is found in the anterior chamber, which sometimes increases very rapidly, but which at other times becomes effused very slowly. The conjunctiva is red and inflamed; and there is generally iritis, and intense pain due to pressure on the ciliary nerves.

Treatment.—Any foreign body impacted in the cornea or elsewhere should be looked for and removed without delay. The pupil should then be dilated, if possible; and for this purpose we use a strong preparation of atropine with glycerine (introduced into the eye with a camel's-hair brush fre-

quently), and for which I subjoin the formula, as it will be found most useful in breaking up commencing adhesions:—Sulphate of atropia, thirty-two grains; powdered starch, twenty grains; glycerine, one ounce. (One drachm of the mixture contains four grains of atropia.) We should endeavour to allay the pain by the administration of morphia by the mouth or (better) hypodermically, and the application of hot chamomile and poppy-head fomentations.

Should we succeed in dilating the pupil and relieving the pain, the frequent instillation of atropine drops (two or four grains to an ounce) and application of hot fomentations will suffice. It is important in all these cases to give good food and a moderate amount of stimulants, preferably beer. In a large number of cases, however, this treatment will be found to give no relief, and to prove no check on the destructive ulcerative process which threatens rapidly to destroy the eye; or the condition may be far advanced when it is presented first to our notice—poultices have been applied, numberless lotions have been tried, and often blisters and leeches have been employed, to render the already pitiable patient more miserable still. In either case, where atropine and fomentations fail, or where the case is already far advanced, bolder measures must be promptly resorted to. The best plan, according to our experience, is to make a *bold incision* through the lower third of the cornea, extending through its whole breadth, exactly similar to the incision generally made in the modified Graefian extraction of cataract. Saemisch advocated a *limited* incision through the ulcer from the sound tissue on the one side to similar tissue on the other side; but our cases prove that this is not essential, or even desirable, unless the ulcer is situated on the lower third. The broad incision most effectually relieves the existing tension, which is one of the most active factors in the causation and propagation of suppuration. Having made the incision, the curdy pus will generally escape without any further manipulation, or with a very little coaxing with a vulcanite spoon; if not, it must be removed with a pair of Graefe's straight iris forceps. The patient instantly expresses great relief from pain. He should be sent to bed and kept perfectly quiet in the recumbent posture for a few days. We should watch daily for any signs of reaccumulation of pus, and if any be found, the margins of the incision should be at once separated with a fine No. 1 Weber's lachrymal probe or the point of a Weber's knife.

Out of the thirty-five cases, it has been only found necessary to reopen the wound once in four cases, twice in only one case, thrice in only one case, and never oftener. In judging the result we must, of course, take the condition of the eye on admission fully into consideration. In twelve of our cases the anterior chamber was more than half full of pus, in six the greatest part of the cornea was in a suppurative condition, in four there was the additional complication of a large lead opacity. In spite of the aggravated and advanced condition of many of the cases, in twenty-four there resulted very good vision, varying from No. 1 to No. 10 Jäger's test-types; in six fair vision, Nos. 14 to 20 Jäger; in four good perception, and in one partial staphyloma (due to neglect of patient). In six cases iridectomy was performed some months later, owing to resulting permanent opacities.

Remarks.—From careful analysis of the above cases, the following advantages may be claimed for a bold section:—1. It gives instant relief from pain. 2. It provides effectual relief to the pus. 3. It proves an immediate check to the ulcerative process. 4. It is the means of restoring useful vision in apparently hopeless cases. 5. It gives rise to little or no deformity, and is followed by no ill consequences. 6. Iridectomy can be performed with greater advantages afterwards, if required, from resulting opacities.

ON THE

USES AND APPLICATION OF IODOFORM.

BY WYNDHAM COTTLE, M.A., M.B., F.R.C.S.,

SENIOR ASSISTANT-SURGEON TO THE HOSPITAL FOR DISEASES OF THE SKIN, BLACKFRIARS.

IN a letter in THE LANCET, signed "M.D.," it is stated that some account of the uses of iodoform, a therapeutic agent the writer finds widely recommended, would be acceptable. As I have employed it largely for some years, I venture to offer a few words on the subject.

As an internal remedy.—For the later forms of syphilitic disease, especially of the tongue, iodoform has been highly recommended by Mr. Berkeley Hill, and also for naso-pharyngeal affections by Dr. Prosser James. A grain or a grain and a half, with extract of gentian, sarsaparilla, &c., in the form of a pill twice or three times daily, is advised. I have given it in many cases of syphilis. I must, however, confess my experience of iodoform, when administered internally, has not been equally favourable. I did not find the improvement I had hoped for in my patient's condition, while the most marked effects of iodine were very often induced—intense frontal pain, coryza, loss of appetite and sickness, with heightened temperature and quickened pulse. In one case these severe symptoms followed the administration of half a grain twice daily.

As a local application.—For some years in America, on the Continent, and in England, iodoform has been a remedy rapidly growing in favour both for venereal and primary syphilitic sores. Its advantages in these cases are attested by the highest authorities. Very useful is it also in most forms of ulceration, whether specific or not, and in almost any situation. It may be applied with advantage to ulcers of the legs, to rupial sores, to buboes that have become open wounds, to ulcerations of the vagina, uterus, &c. This agent has been highly spoken of as an application in cases of post-nasal catarrh, of ulcerations of the throat, of ozena, whether syphilitic or not. As a parasiticide it is serviceable, many cases of tinea tondens, sycosis, &c., improving under its influence. Most soothing, too, is it generally when used topically to malignant ulcerations. Indolent sinuses may often also be beneficially injected with solutions of iodoform.

Two points of clinical importance must, however, be borne in mind in the employment of iodoform. Though a local anodyne, it is in some degree an irritant. It should never, therefore, be applied to an inflamed surface, since it is likely to cause irritation and pain. It is to the indolent ulcer, in which action is absent or deficient, that it acts so beneficially. And, again, iodoform is apt to inflame the sound skin that surrounds the lesion it is intended to benefit, if kept in contact with it for any lengthened period.

Many plans have been devised for applying this drug. On ulcers and venereal sores, previously cleaned and dried, it may, when finely powdered, be lightly dusted, a piece of dry lint being laid over it, and the dressing renewed night and morning while the discharge is profuse, once daily being afterwards sufficient. Tannin or fuller's earth may be mixed with the iodoform in any proportion if it is desired to moderate its action, equal parts of the ingredients being generally prescribed. Iodoform can also readily, by trituration, be made into an ointment with lard or vaseline, or any of the petroleum derivatives, five to twenty grains to an ounce of the base. This mode is especially useful when it is desired to make the application to internal cavities.

Iodoform is sparingly soluble in water and glycerine, somewhat more so in alcohol and warm oil, but readily dissolves in ether, and to a still greater degree in chloroform. This property furnishes us with perhaps the most convenient and easy method of application. A solution of one part of iodoform in six to twelve of either of the last-named bodies is painted with a camel's-hair brush over the surface to which it is desired to apply it. The solvent evaporates, leaving a film of iodoform, and in most cases the process should be repeated once or twice daily. To avoid the pain which this evaporation of the solvent is apt to produce in sensitive parts, such as the nasal fossæ, Dr. Woakes advised "iodoformed wool"—that is, finely-carded cotton-wool with which an equal weight of the drug has been intimately blended. A piece of this medicated wool is to be placed in the required situation, and allowed to remain there from one to twenty hours.

The extremely penetrating and disagreeable odour of iodoform is its chief objection in practice. I find this is best obviated by great care that none of this powerfully-smelling drug is dropped on the patient's clothes, that when applied it is as far as possible covered over, and in some degree it may be disguised when made into an ointment by prescribing with it some essential oil. Tannin, also, when mixed with iodoform possesses the peculiar property of in some measure removing its odour.

Savile-row, W.

FEEDING BY THE NOSE.

BY T. NEWINGTON,
ASSISTANT MEDICAL OFFICER AT BETHLEM HOSPITAL.

HAVING had great opportunities of observing patients who obstinately refuse to take food, and thereby necessitate their being fed by some mode or other, I have come to the conclusion that feeding by the nose is much preferable to any other method. Now, in order to do this in the cleanest and quickest way, with the least struggling on the part of the patient and medical attendant, I have, with the aid of Messrs. Walters and Co., of Palace-road, Lambeth, had an instrument constructed. It consists of a hollow ball, made of vulcanite, which unscrews in the centre; to this are attached three tubes, two of which are nearly parallel and fifteen inches long, for inserting through each nostril, while the third is of larger size, and has attached to it a funnel for pouring milk or beef-tea into.

The advantages I claim for the instrument are the following:—(1) It does away with the necessity of having to open the mouth, which, with patients with good teeth and strong jaws, is sometimes exceedingly difficult; thus the mouth and teeth are never damaged, which very often happens when the former has to be forcibly opened. (2) It is very expeditious, having two tubes; thus taking less time than when one only is used. (3) The fluid will pass through in three minutes, and none need be spilt; and I think there is less tendency to vomit than when a tube is passed through the mouth.

With regard to the instrument itself, there is nothing to get out of order. No metal is used in its construction; and, as it unscrews in the centre, it is very easily cleaned. I will only add that in feeding patients they are laid on their back on a mattress and fixed with a sheet across the body, steadying their head with a towel over the forehead and kneeling on the ends of the towel.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

STRICTURE OF THE URETHRA; RETENTION RELIEVED BY RECTAL PUNCTURE; SUBSEQUENT EXTERNAL URETHROTOMY; ABSCESS BETWEEN THE RECTUM AND PROSTATE; PROFUSE HÆMORRHAGE; PYÆMIA; DEATH.

(Under the care of Mr. CHRISTOPHER HEATH.)

W. D——, aged fifty-four, a chair-maker, was admitted at 8.30 A.M. on June 21st, 1878, with retention of urine, the bladder being distended to the umbilicus. He was catheterised by the house-surgeon for ten minutes without success; then put into a hot bath for an hour, in which he passed sufficient urine to relieve his most urgent symptoms. After this another attempt was made to pass a catheter, but without success. In the afternoon Mr. Heath attempted to pass a catheter, while the patient was under ether, Nos. 4, 3, 2, and 1, English silver, and Nos. 3 and 2 French, being used in vain. The catheter passed into a false passage to the right of the urethra. There was free hæmorrhage from the urethra, the blood coming out in jets. Mr. Heath punctured the bladder through the rectum, and drew off a pint and a half of dark urine. The tube was tied in, and the patient put to bed.

He passed a quiet night, though he obtained no sleep. Next morning he was in no pain; the tongue pale and moist; the pupils moderately contracted; the bowels acted twice in the night, with each stool was some coagulated blood; the abdomen was natural; there was no dulness above the pubes, and no supra-pubic pain; the urine ran freely through the tube, and was mixed with blood.

On the 24th at his visit Mr. Heath attempted to pass a catheter, but failed, the false passage being entered, and profuse bleeding following again.

On the 26th, in the morning, the tube slipped out of the bladder. There was a small superficial sore over the sacrum. At 2 P.M. the patient was placed under ether, and Mr. Heath performed Wheelhouse's operation of external urethrotomy. The patient being placed in the lithotomy position, Wheelhouse's staff was passed down to the stricture. A knife was then entered in the mid-line of the perineum, and the bulbous portion of the urethra in front of the stricture was opened, and the edges held apart by artery forceps. There was moderate bleeding, which was soon arrested by sponging with iced water. The director was then passed through the stricture into the bladder; along the groove of this a gorget was passed; from the perineal wound a large silver catheter was passed along the gorget into the bladder, and half a pint of offensive urine was drawn off. A No. 10 silver catheter was then passed from the meatus, and after a little difficulty was introduced into the bladder, and tied in. In the evening patient shivered, after which he turned hot and perspired. Temperature 102·2°.

He passed a quiet night, and next morning there was neither abdominal distension nor supra-pubic pain. The urine had run away freely by the catheter through an india-rubber tube connected with a pan under the bed. Temperature: 10 A.M., 102·6°; 7 P.M., 99°.

On the 28th the patient looked very ill; the features were pinched, and the mucous membranes cyanotic. At 10.30 A.M. he shivered, and at 11.30 A.M. temperature was 104°; pulse 125. 7 P.M.: temperature 99·4°. 10 P.M.: temperature 102·4°. Patient was sick through the night. There was no distension of the abdomen, no pain on pressure over either iliac fossa or around perineal wound. The breath-sounds over the chest were harsh, and accompanied by bronchitic râles.

On the 29th, at 9 A.M., profuse bleeding occurred, apparently from the puncture in the bladder per rectum. Lint plugs and perchloride of iron were applied without success. The amount of blood lost was estimated by the house-surgeon at three pints. At 10.30 A.M. Mr. Heath saw the patient and made a compress plug of lint, which stopped the bleeding. At 11 A.M. he breathed rapidly and looked very blanched. Pulse rapid and very weak. He never rallied after this, but gradually sank and died at 7.30 P.M.

Necropsy, thirty-five hours after death.—Rigor mortis well marked; body well nourished; wound in perineum dirty and offensive. On opening the thorax, a trace of serum was found in each pleural cavity, also in pericardium. Heart-substance flabby; lining membrane deeply stained with blood-colouring matter; large firm post-mortem clot filling the right heart. Valves healthy. Inner surface of aorta deeply stained with red colouring matter, and flecked with atheromatous patches. The lungs were slightly emphysematous anteriorly; posterior parts of the upper lobes congested. The posterior part of inferior lobe and base on both sides deeply congested, and mottled with livid spots, with every gradation of inflammation to well-defined abscesses, ranging from the size of a cherry to a pin's head. There was a large number of abscesses, all situate in the posterior surface of the lower lobes on both sides. The liver was rather larger than normal; weight sixty-four ounces; showed nothing special except change of colour from sulphuretted hydrogen. The spleen of normal size, firm, mottled on left border by three patches of congestion, corresponding to patches of firmer consistence; no infarcts; no trace of abscess. The kidneys were normal in size. On section in both a zone of distinct active congestion was seen around the bases of the pyramids, and an occasional fleck here and there in the cortex. The pelvis was full of pale, turbid urine. The ureters perfectly healthy. The bladder was extremely hypertrophied, but comparatively healthy inside. On its outer surface, in recto-vesical pouch, there was some lymph, but no other trace of inflammation. The urethra was pervious; but a quantity of pus infiltrated the spongy portion half way down into the glans. The wound, very sloughy and foul, led up into a

ragged cavity about and behind the prostate. How far this was the result of instrumentation was uncertain, the tissues being sloughy in the extreme. The rectum was deeply stained and abraded by the plugs dipped in perchloride. No point could be discovered as the source of the hæmorrhage. The blood might have come from a pedunculated body like a bleeding pile, which had a clot on its apex. This body was about eight inches from the anus. The rest of the rectum was congested as high as the sigmoid flexure. The trocar wound into bladder was sloughy, and about large enough to admit the tip of little finger. The prostatic veins contained no broken-down clots.

KING'S COLLEGE HOSPITAL.

A PORTION OF CLAY TOBACCO-PIPE STEM REMOVED FROM THE MALE BLADDER WITH THE LITHOTRITE SCOOP.

(Under the care of Mr. WILLIAM ROSE.)

L. S——an Italian, aged fifty-four, a labourer, was admitted into the hospital on Aug. 22nd, 1878, with the following history. Four days before admission, when under the influence of drink, he passed along his urethra the stem of a clay tobacco-pipe, and, losing his hold, it slipped up into his bladder.

The patient was examined by Mr. Rose. A No. 9 sound was passed easily into the bladder, and the presence of the foreign body immediately detected. There was some irritability of the bladder, the pipe stem having lain there four days; and during the examination the urine was discharged along the side of the instrument, nearly emptying the viscus. By manœuvring the sound very carefully, it was ascertained that the pipe stem lay fore and aft—i. e., along the base of the bladder in the axis of the pelvis. By gently tapping the pipe stem at its far end with the beak of the sound, and at the same time pressing up against the base of the bladder, with the right forefinger in the rectum, the position of the stem was changed, so that it lay across the bladder in a transverse direction. The sound was withdrawn and the lithotrite scoop introduced, and an attempt was made to seize one end and extract the stem entire. This was not successful, for although the stem was readily grasped by the scoop (which was impossible when in its former position), it could not be turned end on, but became jammed across the neck of the bladder directly extraction was attempted. The lithotrite scoop was therefore withdrawn, and a fenestrated lithotrite substituted. The pipe stem was seized as near its middle as could be judged, and broken in two at the spot indicated by the interval in the accompanying woodcut.

As the patient complained of pain, and as there was so little urine in the bladder, the lithotrite was withdrawn, and nothing further was attempted. He was ordered a warm bath, to remain perfectly quiet in bed, and to take five grains of compound soap pill every six hours.

On the following day the lithotrite scoop was again introduced. The two portions were readily felt, easily seized, and extracted one after the other without any difficulty. The patient expressed himself as feeling greatly relieved, and said that the extraction of the pieces caused him little or no pain. He had passed in the bath one or two gritty fragments sufficient to account for that portion crushed in the teeth of the lithotrite.

Two days afterwards he was carefully sounded, and, as nothing further could be detected, he was discharged on Aug. 26th.

The woodcut represents the actual size of the pipe stem, the length of which, allowing for the interval where it was broken, measures a little over two inches and a half.

Remarks.—In THE LANCET of March 26th, 1864, a similar case is recorded under the care of Mr. Henry Smith. The length of the pipe stem was two inches. Mr. Smith endeavoured to crush more completely in his case, and the patient passed spontaneously the larger portion, an inch and one-eighth long. On Aug. 11th, 1877, a case under the care of Mr. Reginald Harrison is also recorded in THE LANCET, in which an aluminium pencil-case was successfully removed from the bladder by means of the lithotrite.

ST. MARY'S HOSPITAL, MANCHESTER.

REMOVAL OF AN INTERSTITIAL FIBROID TUMOUR OF THE UTERUS; RECOVERY.

(Under the care of Dr. LLOYD ROBERTS.)

THE patient was a woman aged thirty-four, the mother of one child (now five years of age). She had always enjoyed fair average health until a year and a half before, at which time she commenced to suffer from menorrhagia; six months later she married a second time (having been a widow for three years), and a month afterwards was seized with severe uterine hæmorrhage a few days after menstruation; the hæmorrhage recurred at intervals, but for the three months prior to the operation it had been almost continuous. The tumour had not been perceived longer than ten months, and had at the time of operation attained the size of a large fœtal head; a portion of it as large as an orange protruded into the vagina through a widely dilated os. The uterus was anteverted, and its cavity elongated to the extent of six or seven inches.

The operation was performed on Sept. 2nd, 1878, under the influence of ether, and proved to be an undertaking of great difficulty. The tumour was without pedicle, and grew from the fundus as well as from the entire anterior wall of the uterus. It was seized with two vulsellum forceps, and strong traction was made in conjunction with firm suprapubic pressure. Dr. Roberts then divided as much of its capsule as was within reach, and finding that prolonged traction was not practicable with the vulsellum forceps, he cut off with uterine scissors as much of the tumour as was in the vagina. When three large pieces of the tumour had been in this manner removed, the cephalotribe was substituted for the forceps, and, by its firm grasp on the tumour, enabled traction to be considerably increased. A fourth piece, much larger than any of the others, was now cut away. The advisability of leaving what remained behind to nature was then discussed, but another trial with the cephalotribe was agreed to, and after continued traction had been persevered in for some time, complete inversion of the uterus was induced. What remained of the tumour was attached to the fundus, and proved to be a little larger than an orange in size; this was separated from its attachments to the walls of the uterus by the hand, and thus the operation of enucleation was satisfactorily accomplished.

The fundus and body of uterus were reduced by manual pressure with very little trouble, owing, no doubt, to the dilated and flabby condition of the organ.

Scarcely any hæmorrhage took place, but the patient suffered from profound shock for two hours; the hypodermic injection of ether, together with brandy and turpentine enemata, were found useful in aiding reaction.

Convalescence was rapid and complete, the highest temperature, 101·4°, being on the evening of the fifth day. The patient left the hospital on the nineteenth day, and a fortnight later her uterus measured only a quarter of an inch above normal, and no return of the hæmorrhage had taken place.

The tumour weighed 3 lb. 5 oz., and was composed of fibrous tissue without the presence of any kind of degeneration.

BECKETT HOSPITAL, BARNSLEY.

TAPPING OF TUBERCULAR PULMONARY CAVITY.

(Under the care of Dr. SADLER.)

IN connexion with a recent discussion at the Clinical Society, the following case may be of interest.

W. U——, aged thirty-eight, after an attack of mild typhoid in 1874, began to show phthisical symptoms, but was not laid aside from work. In March, 1878, there were distinct symptoms of a cavity near the base of the right lung. In June the shortness of breath, emaciation, and

general weakness had increased so much that he was obliged to give up work and submit to regular medical treatment. The expectoration was, however, not very abundant and not offensive to the smell. Towards the end of the month Dr. Clifford Allbutt, of Leeds, saw him, and thought that as the signs of a cavity were confined to the base of the right lung and the left lung, and a great part of the right seemed to be in a fairly useful condition, it would be a suitable case for trying to drain the cavity. On July 4th Dr. Sadler had a consultation with Dr. Allbutt, Dr. Churton, and Mr. Jessop, when the same conclusion was arrived at.

On July 10th, the patient having been removed to a private ward of the hospital, for the sake of more constant supervision, &c., Mr. Jessop made an opening between the tenth and eleventh ribs anterior to their angles, being the point where the loudest gurgling could be heard. The lung was found completely adherent to the costal pleura. A trocar was pushed in, but no matter came out. The finger was then introduced; the substance of the lung was found hardened, having softish patches, but no distinct cavity. Dark blood escaped freely, but was soon stopped by pressure with the finger; a director was next passed in, and at last a small cavity could be reached by the finger. A large doubled drainage-tube was passed into the wound and stitched to its edges. Air and mucus passed freely through this tube and the wound. Bloody sputa came also by the mouth for a few minutes. A large pledget of marine lint and tow was placed over the wound. Lint soaked in carbolic acid lotion (1 in 12) was afterwards placed between the layers of the dressing. Before the operation the pulse was 120; temperature 98·4°. At 10 P.M. pulse was 116; temperature 100·6°; respiration 24. Ether had been given for about fifteen minutes during the operation, but had to be discontinued from the obvious danger of suffocation.

The patient had a bad night, with much flatulence and pain in the wound. During the next fortnight, although there was a free flow of semi-purulent mucus from the wound, there was not much relief to the cough, and after the first three days a good deal of expectoration came up by the mouth, but the cough seemed to be less efficient and more harassing in consequence of the opening in the chest-walls. There was a good deal of hectic, the pulse varied from 104 to 134, the temperature ranged from a little below normal to 103·4°, and the respiration from 24 to 50 per minute. Little sleep was obtained without the use of chloral. From the 18th, moist sounds began to be distinct about the right nipple. The tube came out on the 21st, and as the wound was freely pervious to air and mucus, it was not replaced after the 22nd. On the 22nd there seemed to be some improvement. He slept fairly at night, took some egg-flip at 5 A.M. on the 24th, shortly after complained of coldness with perspiration, at 7 A.M. said he wanted more air, and died suddenly soon after.

The chest was examined on the 25th, thirty-six hours after death. The right lung was slightly adherent at its apex, where there was a little tubercular deposit, otherwise it was healthy; the left lung was universally and firmly adherent, and, excepting its base, hollowed out into a large cavity, divided by an imperfect septum, the upper division being ten inches long by four inches wide, and the lower six inches long. Both were empty; the base of the lung was solid; no crepitating portion could be found throughout the organ. In this solid part was the operation wound, about two inches below the cavity, and communicating with it by a narrow channel. In the pulmonary artery was a long white toughish clot. The ventricles of the heart contained clots partly white and partly dark.

It will be noticed that the cavity proved to be much larger and decidedly higher placed than was diagnosed during life, although four medical men had carefully examined the patient, with the special object of fixing the size of the vomica and the point where it came nearest to the surface—another illustration of the difficulty referred to by Dr. Theodore Williams and others in fixing by auscultation the exact size, form, &c., of a cavity.

THE 1873 deaths registered in London last week included 12 from small-pox, 31 from measles, 56 from scarlet fever, 8 from diphtheria, 66 from whooping-cough, 26 from different forms of fever, and 9 from diarrhœa. The deaths from affections of the respiratory organs increased last week to 629 from 555 in the week ending January 4th.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Disease of the Mastoid Bone.—The Effect of Diet, Rest, Exercise, &c., in Chronic Nephritis.

THE ordinary meeting of this Society was held on the 14th inst., Dr. Charles West, President, in the chair. Two papers were read, one on three cases of disease of the mastoid, each of different nature, by Mr. Dalby; the other an elaborate account of certain experiments upon the influence of diet, rest, exercise, &c., on the excretion of albumen in a case of chronic nephritis, contributed by Drs. Sparks and Mitchell Bruce.

Mr. DALBY read a paper on "Disease of the Mastoid Bone." In this communication three cases were chosen to illustrate the prominent features of the diseases to which the mastoid bone is liable. In the first case a purely local irritation, without any predisposition towards cancer, was productive of epithelial growth, which, starting from the tympanic cavity, eroded and destroyed the mastoid process, the external meatus, the tympanum, and a large part of the petrous portion. In this, as in all the recorded cases of malignant disease of the ear, the lining membrane of the tympanic cavity had been a discharging surface for a considerable period. In this discharging surface, according to the author, will be found the irritation which precedes the new growth. In the second case, the middle ear having been the seat of acute inflammation for four weeks, the mastoid cells were opened for the relief of symptoms which were considered to endanger life. In connexion with this case the following questions were discussed:—1. Under what circumstances should the mastoid cells be perforated? 2. When should the case be allowed to proceed till the bone had so far become softened as to permit of the opening of the so-called abscess by the knife? Mr. Dalby considered that the operation of opening the mastoid cells is urgently called for when the symptoms point to the presence of pus within the cells; that under certain conditions external evidences, such as superficial tenderness, redness, swelling, and considerable œdema, should not be waited for, and that the fact of the bone being found after the incision to be apparently healthy should not contra-indicate this proceeding, which he believes to have frequently been the means of preventing cerebral abscess, meningitis, or pyæmia. In the third case the whole of the temporal bone of a child was destroyed by ulceration. The subject of the first case died, the subjects of the second and third lived. The specimens of Nos. 1 and 3 were exhibited.—Mr. SAVORY said that the first case illustrated well the fact, well known, of the influence of irritation in the development of epithelial cancer, of which chimney-sweep's cancer used to be so striking an example, and of which cases of cancer of the tongue starting from the seats of fissures and cracks, whether syphilitic or other, were also examples. There must be a stage in the development of such growths when the tissue would not be structurally cancer and yet would be cancerous. By predisposition he supposed was meant the liability in certain persons for parts under the influence of irritation to develop into cancer, and it was a fact that cancer (e.g., of the tongue) so arising developed in younger subjects than when it occurs apart from any previous disease. Did Mr. Dalby regard his case as one of epithelial cancer or rodent ulcer?—Mr. DALBY, in reply, said he would hesitate to decide the pathological question, although, for his own part, he knew of no difference between rodent ulcer and epithelioma, and clinically the case might have been called by some under the one name, and by others under the other.

A paper was then read entitled "Observations on the Effect of Diet, Rest, Exercise, &c., in Chronic Nephritis," by EDWARD T. SPARKS, M.B. Oxon., and T. MITCHELL BRUCE, M.D. Lond. The authors first gave a brief description of the case on which their experiments were made—namely, a case of chronic phthisis and albuminuria, with

severe intercurrent exacerbations. They next showed what the relations of quantity of urine, albumen, and urea were to one another in this patient on ordinary mixed diet, and while taking ordinary exercise. The results were then given of experiments with absolute milk-diet, non-nitrogenous diet, excess of eggs, and nitrogenous diet with water respectively, as well as of experiments on the effect of rest and of exercise, and of the administration of digitalis, upon the amount of albumen and of urea, and on the specific gravity and total amount of urine. The conclusions at which the authors arrive, from the results of the experiments in this case are briefly as follows:—First, the amount of albumen was reduced by absolute milk-diet and by absolute non-nitrogenous diet. Secondly, the effect of the milk-diet was not merely apparent, and due to the albumen being more than ordinarily diluted, for ordinary diet with an equal amount of water did not produce the same result. Thirdly, eggs in excess did not appreciably reduce the amount of albumen. Fourthly, the effect of a non-nitrogenous diet was decided; the effect was not immediately produced, and it persisted some time after nitrogen was re-ingested. Fifthly, absolute rest remarkably reduced the amount of albumen. Sixthly, increase of arterial pressure by digitalis possibly increased the excretion of albumen. From these results the authors drew certain deductions with regard to the treatment of albuminuria, especially by rest.—The PRESIDENT said the thanks of the Society were due to the authors for their elaborate and laborious paper.—Dr. QUAIN cordially agreed with Dr. West that the Society was indebted to the authors for their investigation into the condition of the urine in serious disease of the kidney, associated in this case with serious pulmonary disease. The authors had not ventured to say upon what conditions—whether of blood, bloodvessels, or nerves—the varying changes they found depended; but they had stated facts which were of great value as leading the way to future research, and as pointing out circumstances under which diminution in the amount of albumen excreted may be looked for. Variations in the quantity of albumen depending on varying circumstances should always be borne in mind. They explained the occurrence of discrepancies which occasionally occurred between two independent observations upon the same case of albuminuria. Examined at one time the quantity of albumen might be very small; at another large. Then there were cases of "intermittent albuminuria," of which Dr. Quain had met with examples. One was the case of a gentleman, whose urine Dr. Bruce had examined; it was marked by a large quantity of albumen after breakfast, the quantity gradually diminishing throughout the day, and falling to *nil* at night. The patient went to Australia, and on his return said that he had got rid of his albuminuria; but probably it had only been examined at night, for the urine passed after breakfast was still found to be highly albuminous. Yet in other respects this patient was in perfect health. Such a case showed the importance of having tested specimens of urine passed at different periods of the day, and also showed that albuminuria may occur from altered general physiological conditions apart from renal disease. Albuminuria and Bright's disease were not convertible terms, and excess of albumen in many cases should be compared rather with instances of excess in urea, phosphates, or urates. In other words, albuminuria had a wider significance than as dependent on local renal changes; it was an indication often of some general constitutional condition. Dr. Quain cited other cases—one in which there had been chronic phthisis of fifteen years' duration, with albuminuria lasting for five years; another, of extreme albuminuria and extensive chronic phthisis with but little influence on the general health. Such cases seemed even to show that albuminuria was rather a safeguard against the development of tubercle. He could recall several cases of the subjects of chronic phthisis with albuminuria, but yet leading active lives.—Dr. ANDREW asked as to the nature of the renal affection in the case read. The presence of chronic phthisis was suggestive of this being lardaceous disease, and if so the effects of diminution or increase of the blood-pressure upon the kidney would differ from what might be expected in granular disease. He did not think that a diet which included cabbage, potatoes, and rice could strictly be styled "non-nitrogenous." A purely non-nitrogenous diet was a powerful therapeutic agent, as he had shown some years ago in treating a series of cases of acute rheumatism solely upon arrowroot. Such cases did better than any others before the use of salicylate of soda had come into vogue. He asked further whether the general condition of the patient was affected by the measures taken; for it was possible to have a form of diet which, while considerably diminishing the amount of albumen and of urea, might yet seriously affect the patient generally.—The PRESIDENT thought Dr. Andrew's queries to be pertinent; for great as was the interest and value of the paper, he would hesitate to draw any definite conclusions from experiments ranging over so short a period of time, and that in a case, not of simple chronic nephritis, but of phthisis *plus* chronic nephritis. Nor was it an object in treatment simply to reduce the quantity of albumen, but to influence the condition of the patient in general; and he would ask under which of the modes of treatment did the patient most improve. He could confirm what had been said as to the great value of rest, for children suffering from scarlatinal nephritis, after being kept in bed for four or five weeks without any albumen appearing, when allowed to get up and run about albumen reappeared in a day or two. This was not simply due to the uniform temperature under which they were when in bed, but as a matter of rest also. He regarded the paper as one of those valuable contributions which serve as steps by means of which we may rise to more thorough and complete knowledge, and as such he thought the authors also would regard it. He thanked Dr. Quain for drawing special attention to facts which should prevent us in any particular case from too hastily doubting the observations or conclusions of another who had seen the case at a different time.—Dr. BRUCE, after thanking the Fellows for the favourable and lenient way in which the paper had been dealt with, disclaimed all but a very small share in the observations. All the analyses were carried out by Dr. Sparks, and under serious difficulties of bad health, imperfect apparatus, &c. The subject of the affection being himself a medical man, it was obvious that the experiments could not be conducted so fully as in the case of a hospital patient. But the normal condition having first been ascertained as fully as possible during seven consecutive days and nights, the experiments showed such a deviation from the mean, that more reliance might be placed upon the conclusions than might seem at first sight justifiable. The nature of the renal affection was obscure. The patient has chronic phthisis; there is a moderate amount of œdema; casts have never been found in the urine; the liver is slightly, the spleen not at all, enlarged. Further, ever since a very early age he has had chronic cardiac disease, evidenced by a basic murmur. There is a certain amount of probability in the view that the renal disease is lardaceous. As to the effect of the different diets upon the patient, the milk diet could not be tolerated, and his health failed on the non-nitrogenous diet; whilst the precise effect of modified diet was uncertain, for during the time at which the experiments with this form of diet were being conducted, he left this country for the south of France, where he always passes the winter. On the whole, he found it necessary to take a certain amount of meat daily. The diet which had been styled "non-nitrogenous" was not strictly so, but in it the amount of nitrogen had been reduced as far as possible. Dr. Bruce added, that they wished to regard these observations simply as experiments, and did not desire to draw from them any definite conclusions, but, as Dr. West had said, to look upon them rather as steps to our knowledge of the treatment of albuminuria by rest.

CLINICAL SOCIETY OF LONDON.

Gastro-enterotomy for Intestinal Obstruction.

THE annual general meeting of this Society took place on the 10th inst.; Dr. Murchison, Vice-President, in the chair. He drew attention to an important resolution which had been passed by the Council to the effect that living specimens illustrative of cases not on the list for the evening may be announced from the chair, and demonstrated before or after the meeting, but that the papers referring to them can only be read by the authors in due order and after being submitted to the secretary.

Dr. De Havilland Hall and Mr. W. Johnson Smith were nominated scrutineers of the ballot.

Mr. LAWSON then read notes of a case of Intestinal

Obstruction for which Gastro-enterotomy was performed, which had been under the care of Dr. Cayley and himself at the Middlesex Hospital. H. C——, aged twenty-three, a compositor, was admitted into the hospital under the care of Dr. Cayley on June 3rd, 1878. He presented a large cicatrix about the neck and face, where he had been severely burnt twelve years before. His health had otherwise been good, and he had never had lead-colic. For the last six weeks he had been somewhat costive, and had suffered occasionally from colicky pains. The bowels acted every day, but the motions were scanty and composed of small hard lumps. On May 29th, while at work, he was seized with an attack of colicky pain much more severe than the previous ones. In the evening he vomited, and he states that the matters brought up had a fæcal smell. The bowels had acted that morning, but there was no motion afterwards up to the time of his admission. During the following three days he had frequent retching, but brought nothing up, and he took no food except a little milk; the colicky pains continuing unabated. His medical attendant had given him sulphate of magnesia and several enemata. On admission the countenance was natural and free from anxiety, the tongue was thickly coated; there was a slight blue line on the gums. He complained of a twisting pain in the belly, especially on moving. It was most marked in the umbilical region, and, though constant, was aggravated by frequently recurring paroxysmal exacerbations. The abdomen was considerably distended, with some tenderness on deep pressure in the umbilical region. There was marked fulness in the epigastric region, below which there was a slight depression. On percussion there was tympanitic resonance in the epigastric, right hypochondriac, lumbar, and iliac regions. In the umbilical the resonance was less markedly tympanitic; and on the left side there was dulness in the iliac and lumbar regions, but it was noticed that the position of the dulness sometimes shifted across to the right side. The circumference of abdomen at the umbilicus was thirty-three inches. The patient belched up wind, but had passed none per anum since the 29th. The urine was abundant, sp. gr. 1037, free from albumen; respiration 24; temperature 99·2°; pulse 108. The patient was placed on his elbows and knees, and a flexible tube passed as high as was practicable, and an enema of warm water administered by a syphon from a vessel placed eighteen inches above the level of the anus. It was not found possible to administer more than two quarts of fluid, which caused considerable distress from a feeling of distension. The enema returned quite free from fæcal matter. Digital examination of the rectum gave negative results. Ordered extract of opium, half a grain every four hours. After two pills the pain was relieved, and the patient fell asleep. He continued, however, to get worse, the pain increased, the belly became more distended, and on June 5th he vomited a flaky, yellow fluid, with a distinct fæcal odour. On the 6th the symptoms were still unrelieved, notwithstanding repeated doses of opium and repeated enemata. He continued to vomit stercoraceous matter. The temperature had risen to 101·2°; the belly was more distended, and there was tenderness. As peritonitis was beginning, it was thought that further delay in resorting to an operation was undesirable. It was therefore decided that a search should be made for the obstruction. The patient having been placed under ether, Mr. Lawson made an incision in the median line of the abdomen, commencing just below the umbilicus. The coils of intestine were seen greatly distended, and with a red, velvety appearance, but still shining and without any deposit of lymph on them. On passing his hand into the abdomen, Mr. Lawson felt a portion of the intestine greatly distended to beyond the size of the adult stomach, and extending from just below the liver on the right side downwards to the right iliac and across the belly to the left iliac region. From the fixity of the intestine he concluded it was the cæcum. He failed to detect any band or constriction, or collapsed portion of the intestine. He now endeavoured to unravel the small intestine by withdrawing it and replacing it through the wound coil by coil, but this proceeding was found impracticable in consequence of the excessive distension of the gut. A considerable portion of the intestine was therefore withdrawn from the abdomen to give room for further exploration; and on again introducing the hand, nothing could be detected but the enormously distended piece of intestine, which was supposed to be the cæcum. This portion of the viscus was now punctured with a large trocar close to the lower end of the wound in the abdominal wall, and a large chamber-vesselful of liquid fæces was drawn off. The cannula was now withdrawn, and a large india-rubber tube, about six inches in length and the size of the finger in circumference, was introduced through the opening the trocar had made, and the end of the tubing was brought out through the bottom of the wound in the abdominal wall. A single suture was applied to one edge of the opening in the intestine, and fastened to the lower cut edge of the abdominal wall, but owing to the fixity of that portion of the intestine, it was found impossible to draw it sufficiently forward to unite it completely to the edges of the external wound. The intestines were then, after some difficulty, returned, and the wound closed with sutures in the usual manner. The parts were dressed with carbolic oil and a compress, and a well-fitted bandage applied to keep the whole *in situ*. During the progress of the operation, as the intestines were drawn from the abdominal cavity they were covered with flannel, made moist and warm by being wrung out of hot water. This flannel happened to be quite new, and consequently the fluff from the flannel adhered to the peritoneal surface, and remained attached when the bowels were replaced. In returning the greatly distended small intestines, the peritoneal coat in two places cracked to the extent of about three-quarters of an inch. Each of these peritoneal wounds Mr. Lawson closed with a continuous suture of fine silk, such as is used in operations on the eye; taking care that the needle perforated only the peritoneal covering, and did not wound the muscular coat of the bowel. The patient was then returned to bed. A profuse discharge of liquid fæces continued to take place through the tube. The next morning his pulse was 160, small and sharp; temperature 103°; belly much distended; has had no more vomiting, and has passed flatus per anum. A free discharge of fæces continued through the tube. He continued to improve from this date; he had no further vomiting; and on the 11th (the fifth day after the operation) he passed a copious semi-fluid motion per anum. After the stitches were removed the abdominal wound gaped a little, but the edges were kept in apposition by adhesive plaster and a bandage round the abdomen, and ultimately the wound united by granulation, leaving at the lower end a small fistulous track, through which a small quantity of fæces continued to escape. The patient left the hospital for the Eastbourne Convalescent Home in the second week in October, but after having been there a fortnight he was sent back with symptoms of obstruction and distension of the belly. A large enema gave him relief, but unfortunately he has had several recurrences of obstruction. The bowels seem to have lost much of their power of propelling onwards their contents, and, as they have probably become more or less adherent to the walls of the abdomen and to each other, a complete block may at any time occur, for which a right lumbar colotomy will afford the only chance of relief.—Dr. MURCHISON, in congratulating the authors upon the successful issue of the case, said that it showed how much might be done to the peritoneum without bad consequences following. Some years ago, in the south of Scotland, a boy in diving ripped up his abdomen, and the protruding bowels became covered with sand as he lay on the shore before assistance could be rendered him; and then some time elapsed before he was seen by a surgeon, who, after carefully cleansing the intestines, returned them into the abdomen and closed the wound. The boy recovered. He would have liked the authors to have stated their opinion as to the nature of the obstruction. It was clearly not an intussusception, and his age was only twenty-three. At the same time the obstruction seems to have been low down in the colon.—Mr. LAWSON said the conclusion he came to was that it was due to a twist or "kink" of the bowel, probably about the sigmoid.—Dr. CAYLEY here read the concluding paragraphs of the paper, which had been omitted for want of time, in which it is argued that the obstruction lay probably in the sigmoid, and was of the nature of a twist or "kink" in the bowel, the tumour which had appeared in the left iliac region being probably formed by the matting together of the bowels by inflammatory deposit, for, as it had somewhat decreased in size, it could hardly be a new growth.—Mr. CRIPPS was

reminded of an analogous case which he read before the Society last year, where a boy, who had suffered from colicky pains for five months following an injury to the abdomen, was admitted into hospital with symptoms of severe intestinal obstruction of four days' duration. The symptoms were controlled by the warm bath and opium for about twenty-four hours, when, on their recurrence, gastrotomy was performed, and a band constricting the ileum was divided. The patient survived the operation eight days, and Mr. Cripps attributed death largely to the fact that, owing to the apparent relief from the opium, the operation had been deferred. Where obstruction depends on a mechanical cause he was of opinion that time was wasted by giving opium, which only served to smother the symptoms.—Mr. BRYANT congratulated Mr. Lawson upon the ultimate success of the case, because the operation did not seem one favourable to recovery. The history pointed to the case being one of acute obstruction supervening upon some chronic condition, and he was disposed to think that the tumour described was formed by matting together of the bowel from some antecedent inflammatory attack. Therefore it might have been matter for regret that the operation had not been earlier performed, for certainly the good result took place in face of the most adverse circumstances, and when such an issue could certainly not have been expected. He was strongly of the opinion that when a diagnosis of mechanical obstruction had been arrived at, the sooner operative measures were had recourse to the better. He agreed with Mr. Lawson that perhaps it would be necessary now to perform right lumbar colotomy; but as to the earlier procedure in such a case he would give the preference to Mélaton's operation, which has the advantage of coming down upon the cæcum if the obstruction be beyond it, or if this be above the cæcum, then the small intestine would be brought in view. He added that it was now well recognised that flannel was most dangerous to use in all abdominal operations.—Mr. T. SMITH said that no one would be disposed to quarrel with Mr. Bryant's advice, but the first thing necessary was to make the diagnosis of mechanical obstruction. He recalled a case that happened to him when house-surgeon at a provincial infirmary. A labourer, after eating a hearty meal, was seized with vomiting, followed by symptoms of acute obstruction of a mechanical kind, passing nothing per anum for two weeks, and suffering from incessant vomiting. Mr. Smith strongly advocated gastrotomy in this case, but it was not done; and, on the patient dying, no obstruction was found, but general acute enteritis. A few days ago he was asked to see the case of a boy who, the day after Christmas-day, was seized with sudden pain in the belly and vomiting, which became fæcal in character, the abdominal walls becoming retracted, and the intestinal coils visible on the surface. There had been much straining, with the passage of mucus and shreds of croupous material. Some thought the case one of mechanical obstruction, others, and among them Mr. Smith, were rather disposed to look upon the case as one of some intestinal irritation, especially as some small amount of fæces was washed away by injections. Operative interference was postponed, and the boy died. There was found strangulation of the ileum by a small band passing from the free end of a Meckel's diverticulum to the stomach. In a third case, a patient of Dr. Church's, with symptoms of acute strangulation, Mr. Smith opened the abdomen by a small incision, through which he examined the ileum, which he pulled out, and replaced coil by coil. After thus examining some three or four feet of bowel, he came to the duodenum; so retracing his steps some five or six feet he at length came to a place where some slight resistance was experienced. This yielded on slight traction, and the seat of constriction came to view. The patient had been placed under the influence of ether, which he took badly; there was much lividity, but he never rallied from the operation, dying, as Mr. Smith believed, poisoned by ether.—Mr. HULKE observed that in spite of the very clear papers which were written from time to time upon the diagnosis of different forms of obstruction, there was often very great difficulty in diagnosis at the bedside. The hard and sharp lines laid down were too often wanting. For instance, it was generally held that when vomiting comes on suddenly with pain the obstruction must be high up, and also that the seat of the pain was some clue to the seat of the obstruction. Some time ago there was admitted into the Middlesex Hospital a girl who, in lifting a heavy chest of drawers, experienced severe pain in the lower part of the abdomen, followed by signs of obstruction. In a short time the cause of this was declared by the formation of an acute abscess in the pelvis. In another case, when, from the seat of pain and the rapid onset of vomiting, the obstruction was thought to be high up, it was found to be at the lowest part of the small intestine. In the present case Mr. Hulke's own impression was that it was due to a band passing across the hepatic flexure of the colon, and he believed that if an opportunity came for examining the body after death such would be found to be the case. The extensive burn from which the patient had suffered some years before must have been accompanied by suppuration, and in such cases peritonitis sometimes occurred or ulceration of duodenum leading to peritonitis. The presence of such a constricting band might not operate in producing obstruction until, from the bowels being neglected, they had become distended by their contents.—Mr. HEATH, commenting on the introduction of a large trocar and drainage-tube into the distended bowel without any attempt at securing it, and trusting only to the formation of adhesions to prevent extravasation of fæcal matter into the peritoneal cavity, said that it was remarkable that so few ill-effects followed. The cause of the obstruction seemed to him to be probably in some bands passing across the ascending colon, or the hepatic flexure, as Mr. Hulke surmised. Mr. Teale, of Leeds, in one case, after opening the abdomen and finding the obstruction to be in the large intestine, had thereupon stitched up the abdominal incision, and forthwith performed colotomy. That would have been a procedure perhaps to be preferred in the present case.—Dr. BUZZARD, whilst heartily congratulating the authors of the paper upon their patient's survival, failed to see that there was any evidence of the operation having caused his recovery. The cessation of vomiting and the gradual return of the fæces to their natural channel could not be attributed to the surgical removal of a mechanical obstruction, because none such had been found. Precisely such a return to normal functioning would frequently occur in cases treated throughout by opium without operative interference. In an appendix to Brinton's "Intestinal Obstruction" (which had been edited by him) he had published examples of this kind. In one, which somewhat resembled the case before them, the patient, nine months after recovery from acute intestinal obstruction, was again attacked, under circumstances which pointed to a band of lymph being the probable cause. Recovery again took place. In Mr. Lawson's case the seat, as well as the cause, of the obstruction remained undiscovered in spite of the operation. Interesting as it was, it would perhaps be still more so after a few months. It was possible that in time a growth might be found, which would explain the obstruction and the value of an operation for which, as the case rested, he doubted whether sufficient justification had been adduced.—Dr. YEO differed entirely from Dr. Buzzard as to the necessity for the operation. Mr. Lawson had described such intense distension of the bowel which would be sufficient to paralyse its walls, and make it beyond the possibility of spontaneous relief. The administration of opium in intestinal obstruction was to be deprecated. By it valuable time was lost. It was commonly said that in such cases opium was the "sheet anchor"; but, whatever that phrase might mean, he himself would prefer not to rely so much upon the drug.—Mr. HOWSE also agreed that the operation was necessary, and it was in the experience of all surgeons how the mere evacuation of the bowel sufficed to relieve an obstruction, just as it becomes easy to reduce a hernia after relieving the gut from flatus or fluid distending it. If Mr. Hulke's view of the case were right it could easily be seen how any very great distension would, by altering the direction of the bowel, render the obstruction complete, and how this obstruction would pass away on evacuating the bowel. Some years ago he published, in Guy's Hospital Reports, a paper showing that opium was very prejudicial when there was clear proof of mechanical obstruction, although he fully admitted the difficulty there was in the diagnosis of such obstruction. When the intestine becomes immensely distended, the prospect of success from the operation was but small. Puncture of the bowel to liberate flatus was harmful, for after it the orifice remains patent, and then flatus and fæces escape, and the patient's chances are very slight indeed. Nor could the rent so made be sewn up, even with the finest thread, because the same condition renders the peritoneal coat liable to tear. Surgeons must look to physicians to make the diagnosis early, in order that operative measures may be had recourse to at a time when only they can hope to be attended with success.—

Mr. HULKE wished to add his testimony to the risk of puncturing distended bowel. It could only be safe when the intestine is mainly distended with solid fæces, but when these are fluid it is a very dangerous procedure indeed. On more than one occasion he had found not only flatus to escape, but fæcal matter to follow, whilst the coats of the bowel became so brittle as to render it impossible to close the orifices by suture.—Mr. CROFT thought that with antiseptics no surgeon need fear any risk in the operation of gastrotomy, and with such a safeguard the earlier the operation the better for the patient. Flannel rendered thoroughly antiseptic might be used without fear of exciting peritonitis.—Dr. STEWART said that when it was necessary to give drugs belladonna should always be preferred to opium.—Dr. CAYLEY, in reply, said that for whatever delay there was in the performance of the operation he was responsible, but he took credit for himself that it had been performed very early in comparison with many cases, and the result, such as it was, was due to this.—Mr. LAWSON agreed with Mr. Bryant, that could the condition of things have been ascertained before operation, Nélaton's procedure would have been best. To Mr. Heath he would say that there was really no choice of doing anything else than puncturing the intestine; the small intestine was enormously distended. He could not understand how Dr. Buzzard had arrived at the conclusion that the operation did not conduce to recovery, all the symptoms subsiding immediately after its performance.—The CHAIRMAN remarked that the discussion illustrated well that difficulty in diagnosis of intestinal obstruction which had been spoken of, for here, even after the abdomen had been laid open, three different opinions had been broached as to its nature—one that it was a twist or kink in the bowel, another that it was a matting of the coils, and a third that it was a band.

The Society then proceeded to the election of officers &c., and subsequently adjourned.

MEDICAL SOCIETY OF LONDON.

Pathology of Peripheral Nerve Diseases.

AT the meeting on the 13th inst., Mr. Erasmus Wilson, President, in the chair, a paper was read by Dr. ALTHAUS, entitled "Contributions to the Pathology of Peripheral Nerve Diseases." He commenced by alluding to discrepancies amongst the authorities as to the frequency of neuritis and perineuritis, which some considered as extremely rare, and others a tolerably common affection, while his experience led him to believe it to be more common than is generally supposed. He then discussed the pathology of acute and chronic neuritis, describing the various forms, such as interstitial, proliferating, and hyperplastic parenchymatous neuritis, and the ascending and descending form of the disease. The fundamental difference between neuritis and perineuritis he stated to be that in the former the central core or cylinder axis undergoes the same degeneration as the other portions of the nerve, while in the latter this important part escapes destruction. Dr. Althaus then described a case of acute olfactory neuritis, which had occurred in the commencement of locomotor ataxy in a patient under his care at the hospital. In this case subjective olfactory sensations had been present for about a month, after which anosmia became established. The case was analysed with regard to pathology, and the conclusion arrived at, that neither the accessory mechanism of smell nor Ferrier's olfactory centre in the tuberculum cornu ammonis, were affected, but that it was a case of acute neuritis of the olfactory bulb at the base of the brain. The patient had since died, and the diagnosis had been confirmed by post-mortem examination. He then related a case of auditory neuritis, discussing the pathology of Menière's disease, and the physiology of the semicircular canals. In the case referred to a severe form of tinnitus occurred, together with vertigo, suddenly, and, after persisting for about a month, led to complete deafness. This patient was also subject to locomotor ataxy. The affection was diagnosed as acute inflammation of the labyrinthine expansion of the auditory nerve, followed by sclerosis of the posterior columns of the cord. The patient ultimately recovered from the ataxy, but remained stone deaf. The last point gone into was perineuritis of the portio dura, which was divided into two classes—namely, that where the inflammation occurs outside, and that where it occurs inside the Fallopian aqueduct. Internal perineuritis was again subdivided into three different sections—namely, the first being from the stylo-mastoid foramen to a point just before the origin of the chorda tympani; the second embracing the chorda and the stapedian nerve; and the third corresponding to the ganglion geniculum, where the petrosal nerves take their rise. The symptoms of inflammation in these different localities were now described, there being paralysis and loss of reflex excitability, but no electric wasting-test in the external form of the disease; paralysis and wasting-test in internal perineuritis throughout the Fallopian canal, loss of taste and hyperacusis in the second Fallopian section; and paralysis of the levator palati in the third. The prognosis and treatment of these affections were then discussed, and it was stated that the chances of recovery were generally more favourable in perineuritis than in neuritis.

Mr. LENNOX BROWNE read notes of a case of Diphtheria in a girl with enlarged tonsils. There was membranous exudation on the soft palate, and albuminuria; and Mr. Browne was compelled to remove the tonsils for the relief of dyspnœa whilst the disease was present. Fresh exudation formed on the raw surfaces, but the case did well. The diphtheria was followed by paralytic symptoms.—Dr. DE HAVILLAND HALL and Dr. L. THOMAS made some remarks.

Mr. W. ALLINGHAM showed a specimen of an Epithelial Growth he had removed from the rectum of a patient aged fifty-two. Symptoms had lasted about eighteen months, pain and hæmorrhage being the most prominent.

PROVINCIAL MEDICAL SOCIETIES.

LIVERPOOL MEDICAL INSTITUTION.—MICROSCOPICAL SECTION.—At the meeting on December 13th, 1878 (Dr. W. Carter, V.P., in the chair), a case of Tubercular Meningitis was brought forward by Dr. OXLEY. The patient was a child aged seven, and the chief interest in the case was the remarkable change in his disposition, which took place before death. From being well disposed he became irritable, would scream out and bite anyone who took notice of him. He died in convulsions. The specimens were from the pia mater and the lungs.—Dr. DAVIDSON exhibited specimens of Disseminated Spinal Sclerosis, the symptoms during life being mainly paraplegia, with partial loss of sensation and electro-contractility. The patient had had syphilis. Patches of sclerosis of a yellowish colour were seen throughout the dorsal region of the cord, varying much in position, some involving the anterior root, others the posterior; others again placed in the median or lateral columns. They always extended to the surface, and could be seen through the pia mater. In the upper part of the cervical enlargement the grey matter of the left anterior cornu had completely broken down. The sclerotic patches consisted of dense fibrous tissue in the centre, and of a vascular round-celled growth at the margins, the walls of the vessels being exceedingly thick. In the posterior median columns there was well-marked ascending degeneration, while in the lateral columns and on each side of the anterior fissure descending changes could be seen. Dr. Davidson also described the tracts of the cord which were affected by descending changes in brain disease, locomotor ataxy, progressive muscular atrophy, and other allied diseases.—Dr. CARTER showed sections from a Liver in a state of Acute Atrophy, the cells being reduced to brown-coloured débris embedded in the connective stroma. The specimens had been taken from a young woman who had only been ill four or five days with the characteristic symptoms of acute atrophy. The liver only had half its normal weight.—Mr. G. WALLER showed a specimen of Sarcoma of the Orbit, and Dr. BRAIDWOOD of Fatty Heart and Liver.—Mr. PAUL showed sections of Spleen, Liver, and Brain from a patient suffering from Melanæmia. He died from the effects of hyperpyrexia. Had never been abroad except to Madeira, and was not known to have suffered from malaria. The pigment was most abundant in the spleen. In the liver it was not restricted to the portal zone, but equally distributed throughout the lobules, and seemed to be contained in the capillaries. In the brain it was found in the smaller arteries. The case had been under the care of Dr. Davidson.

WOLVERHAMPTON DISTRICT MEDICAL SOCIETY.—The first monthly meeting of this Society was held on Dec. 3rd,

at the New Medical Library, Wolverhampton, when the President, Dr. BODINGTON, delivered his inaugural address on Insanity, with especial reference to its prevention.—Dr. MILLINGTON exhibited a Brain, which had been the seat of a Double Hæmorrhage into the hemisphere and into the pons.—Dr. JOSEPH HUNT showed a lad, aged eighteen, who had been cured of an Empyema, after three aspirations and the withdrawal of 180 ounces of pus.—Mr. VINCENT JACKSON showed and made remarks on Martin's Elastic Bandages.—Twenty-two members and visitors were present.

Reviews and Notices of Books.

Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques. Tom. xxv. ORE—PAP. Paris: J. B. Baillière. 1878.

THE principal articles in this part are Oreille, by A. Després and G. Poinsot; Oreillons, by Eug. D'Heilly; Orthopédie, by Panas; Os (Anatomie), by L. Merlin, (Pathologie) by L. Gosselin and G. Schwartz; Ouïe, by M. Duval; Ovaires (Anatomie et Physiologie), by M. Duval, (Pathologie) by Kœberlé; Pædiatrie, by Eug. D'Heilly; Palais, by Paul Marduel; Pancreas, by H. Mollière; and Pansement, by J. Rochard.

The article Oreille, by Després, commences with a short account of the anatomy of the ear, then describes the modes of illuminating and exploring the auditory meatus and Eustachian tube. The instructions for introducing the Eustachian catheter are identical with those given by Kramer, and the proceedings are those which we have always followed—viz., the introduction of the instrument till the extremity touches the posterior wall of the pharynx, its withdrawal a short distance till the posterior border of the Eustachian tube on the lateral wall of the pharynx is felt and surmounted, and, finally, gentle pressure outwards and upwards. This method is decidedly easier, less painful, and safer than that practised by Bonnafont, of aiming for the aperture before touching the posterior wall of the pharynx, though, of course, the practised aurist will accomplish the manœuvre with equal ease, whichever plan he adopts. A caution is added, which is not out of place—namely, that the greatest care should be taken in effecting the thorough purification of the instrument after each time of employment, otherwise the surgeon may have to deplore, as in the instance quoted by M. Duplay, the transmission of numerous cases, of syphilis. The Eustachian catheter, once fixed in position, becomes the means by which filiform bougies, air, or divers gases and fluids can be introduced into the cavity of the tympanum; and an account is given of the various instruments in use, that recommended being the "insufflateur et aspirateur de Bonnafont," which seems to fulfil all indications. Politzer's method is, of course, given in full. The diseases of the pavilion and external auditory meatus are then referred to under the heads of injury, cutaneous affections, tumours, and foreign bodies, all of which, we are glad to see, he says can be extracted by means of injections of water, for that is a precept that should be engraved on the mind of every student of diseases of the ear; inflammation, and, lastly, diseases of the middle ear. As usual, a good bibliography is appended.

Oreillons, or Mumps, is treated by Eugénie D'Heilly. He regards it as indisputably contagious, caused by an infection of animal origin, which reproduces the disease by simple contact, or, rather, by living in the infected air. He has nothing to add to the treatment of the disease generally adopted.

The article Orthopédie, whilst giving the characters and treatment of deformities of the feet sufficiently well, omits, curiously enough, all mention of Sayre's method of treatment of curvatures of the spine, which has attracted so much attention in America and in this country. The omission will probably be rectified in the article Rachis, which will appear in a future volume.

Os (bone) is described at considerable length under the heads of Anatomy and Physiology, including development: osteitis proceeding from injury; osteitis of spontaneous origin; necrotic osteitis, and benign and malignant tumours. In the section by M. Merlin, on its development, the views of H. Müller and Ranvier are given with much clearness and in moderate compass. M. Gosselin contributes some interesting observations on what he has named the epiphysiary osteitis of youth—a form of inflammation that he thinks is peculiarly liable to attack the long bones when a layer of cartilage of variable thickness still remains between the diaphysis and epiphysis. The femur and tibia are more liable to it than the radius and the ulna. As in ordinary osteitis, there is at first congestion, and if this do not terminate in resolution, hyperostosis succeeds, then suppuration and necrosis. The inflammation is often not limited to any one part, but affects the periosteum, the compact and the medullary tissue alike; as a rule, however, the stress of the disease falls on the periosteum. The destruction of the epiphysiary cartilage may proceed to a greater or less extent, and, as a result of this, the epiphysis and diaphysis may become separated to a greater or less extent. M. Gosselin gives no less than five clinical forms of this affection presenting characteristic symptoms, the differences depending essentially on differences in the tissue affected.

The physiological part of the description of the organ of hearing is based upon Helmholtz's experiments, and M. Duval considers that the vibrations of the membrana tympani only reach the internal ear by the fenestra ovalis through the stapes, which normally receives them from the malleus and incus, although abnormally the air in the tympanum may be the conductor; and, speaking of the different views that have been propounded in regard to the terminations of the auditory nerves in the organ of Corti, M. Duval very justly notes that the two arches are absent in the cochlea of birds, which nevertheless possess a very delicate and finely adjusted musical ear.

The article "Ovaires" is almost a treatise, extending over 150 pages, and is followed by a valuable bibliography. The peculiar character of the epithelium of the ovary is, of course, dwelt upon by M. Duval, together with the recent and important researches of Pflüger, His, Sappey, and others on the tubular structure presented by the ovary in the early stages of its development. The Pathology, by Kœberlé, contains a full account of all the varieties of cysts, and is illustrated by many drawings. The treatment of these forms of disease is given with German exhaustiveness. Under the head of Surgical Treatment alone the following are given:—Abdominal median; abdominal lateral puncture; vaginal and rectal puncture; puncture and incision with drainage, followed by irritating injection; partial ablation of the cyst, followed by drainage and suppuration; abdominal and vaginal extirpation. The subject could not have been placed in better hands, as M. Kœberlé has himself had large experience, and many years ago wrote a prize thesis upon it. He reports that up to March he has had 293 cases, with 218 recoveries and 75 deaths, or 25 per cent. of fatal cases—a very excellent result. He has almost abandoned drainage, and cleanses the peritoneal cavity with linen cloths. He applies deep sutures, and closes the wound with harelip pins. He does not apply a clamp, but simply ties the pedicle, and brings the ligature through the wound.

Of Pædiatrie, Palais, and Pancreas we have not space to speak. The volume is a good one.

OUR LIBRARY TABLE.

The Cell Doctrine, its History and Present State. By JAMES TYSON, M.D. Second Edition. Philadelphia: Lindsay and Blakiston. 1878.—The nineteenth century, so prolific in scientific research and philosophical speculation, will always remain notable for having been the period in which the view that animal and vegetable organisms were made up of ultimate elements, each living and growing, as it were, independently of the other, first took coherent shape and expression. But the physiological historian of the future will also have to record how much conflict arose over this "cellular theory," how its importance rose and fell with the varying waves of opinion that passed through the scientific world; how the "cell" itself came to denote little else than a formless unit of protoplasm, which had in it, as it were, the potentialities of life—nutrition, growth, and reproduction. Modified as have been the views of the original cell-theorists, and modified as no doubt present views will be with the extension of microscopical research, yet the central fact implied by the "cell-doctrine" will remain unshaken. As a faithful record of the progress of scientific speculation and research upon the significance and the structure of "cells" this work of Dr. Tyson's takes a prominent place, whilst the fact that it has reached a second edition shows the interest with which the subject is viewed. The author here travels over the whole extent of the subject, tracing the origin of the theory even to times prior to Schleiden and Schwann, in the theories of Haller, Wolff, and Oken, and thence reviewing one by one the writings of others subsequent to these observers. The bibliography appended to the book contains references to 300 separate memoirs on the subject! But even yet, as Dr. Klein's recent work on the structure of the nucleus and nucleolus shows, much remains to be learnt on the structure of cells. It would be safe to predict that the century will pass away before men know fully all that is embraced in the "cell doctrine."

Sore-throat, its Nature, Varieties, and Treatment. By PROSSER JAMES, M.D., M.R.C.P., Lecturer on Materia Medica and Therapeutics at the London Hospital, &c. Third Edition. Illustrated in hand-coloured Plates. London: J. & A. Churchill. 1878.—There is little to say about this book that has not been said before, and it is neither an easy nor a specially grateful task to criticise the work of a professed specialist. The so-called hand-coloured plates at the beginning of the book are pretty, and to a certain extent useful, but they are literally (as well as, perhaps, figuratively) too highly coloured. Nevertheless we may record in all sincerity that the book, as a class-book, contains much that an industrious student can pick up easily. The style is not stiff nor is it heavy, and though much marred by an egotism that unhappily appears on most pages, the descriptions given are clear, and sufficiently precise. And we are glad to wish and predict for the book a very fair run of success, especially among our Transatlantic brethren, for in the States Dr. James seems to have been a decided success.

Transactions of the American Gynæcological Society. Vol. II. 1877.—This volume is nearly twice as large as its predecessor, and contains several papers of considerable value. The address of the President, Dr. Fordyce Barker, on Medical Gynæcology, contains a thoughtful review of the progress of gynæcology during the past fifty years. Dr. Dalton has contributed an elaborate report on the "Corpus Luteum," and Dr. Byrne a lengthy paper on Amputation and Excision of the Cervix Uteri. Other papers of great interest are—"Is there a field for Battey's Operation?" by Robert Battey; "The Functions of the Anal Sphincters," by Dr. Chadwick; "Electrolysis of Ovarian Tumours," by Dr. Munde; "Sarcoma of the Ovaries," by Dr. Atlee; and "The Radical Treatment of Dysmenorrhœa and Sterility by Rapid Dilatation of the Canal of the Neck of the Uterus," by Dr. Wilson. At the end of the volume is an index of works on gynæcology and obstetrics, published from July 1st, 1876, to Jan. 1st, 1877, and they form a valuable addition to the volume.

Letts's Medical Diary is one which is very well conceived and executed. It is to be had in every variety of styles and bindings. It includes many useful tables. There is one table we miss in it and in similar diaries, which would be very useful to practitioners—a table of the periods of incubation of the principal zymotic diseases. With very little more trouble the chief points in their natural history might be given. Another acceptable addition would be a table showing the equivalents of different thermometric scales.

New Inventions.

MATHER'S PATENT CLOUD RESPIRATOR.

WE are glad to direct the favourable attention of our readers to a new and simple respirator, to which the above name has been given. It is simply a knitted square of lamb's-wool, in fairly close meshes, with a fringed edging, the whole large enough to cover the mouth and, if desirable, the nostrils of the wearer. It is less conspicuous and less unpleasant to wear than most of the respirators in use. The air is warmed in its passage through the meshes, and the grosser floating impurities are arrested. The respirator is made in two colours, white and slate; and its cost is only a shilling.

HEALTH OF LARGE ENGLISH TOWNS IN THE SECOND WEEK OF 1879.

DURING the week ending last Saturday 5437 births and 3828 deaths were registered in twenty of the largest English towns. Both births and deaths considerably exceeded the average weekly numbers during 1878; the deaths, however, showed a further decline of 228 from the high numbers returned in recent weeks. To the seven principal zymotic diseases 427 deaths were referred in these towns—a lower number than in any week during 1878. Scarlet fever and whooping-cough were the most fatal of these zymotic diseases. The deaths from scarlet fever were more numerous than those in the preceding week, and showed the largest excess in Salford, Birmingham, Oldham, and Leeds. Fever, principally enteric, was proportionally most fatal in Oldham, Plymouth, and Liverpool. Small-pox caused 12 more deaths in London, whereas no death from this disease was recorded in any of the nineteen large provincial towns. No zymotic death was recorded last week in Wolverhampton; the annual zymotic death-rate ranged upwards in the other towns from 0·8 in Portsmouth, to 5·2 and 7·6 respectively in Oldham and Salford. The death-rate from all causes in the twenty towns, which had been equal to 32·3, 30·4, and 29·1 per 1000 in the three preceding weeks, further declined last week to 27·1. The effect upon the mortality of the exceptionally low temperature that prevailed last week will probably appear in the returns for the current week. In the twenty towns the general death-rate last week ranged from 14·3 and 15·8 in Brighton and Portsmouth, to 35·2 and 36·1 in Manchester and Salford. The high death-rate in Manchester does not appear to have been so entirely due, as it was in Salford, to the exceptionally fatal prevalence of zymotic diseases.

THE LANCET.

LONDON: SATURDAY, JANUARY 18, 1879.

BARELY a month will elapse before Parliament will reassemble, and the Government must be prepared with a statement of the measures they propose to submit for consideration during the session of 1878-9, which will then commence in earnest. It is agreed on all hands that home affairs will claim, and they will probably receive, a larger share of attention than in recent sessions. As no branch of our home administration can have equally vital importance with that dealing with the public health, and as the organisation of this branch of government is probably suffering more severely than any other from ministerial apathy, it can scarcely be unreasonable to expect some consideration for sanitary progress at the hands of Government and of the Legislature.

The public health legislation of 1871 and 1872, and the partial consolidation of the Sanitary Acts in 1875, were more or less of a tentative character, calling for further action, which has hitherto been withheld. Under present circumstances, the public health service in England is, in many respects, in a more unsatisfactory condition for promoting sanitary progress than it was prior to 1871. Theoretically, public health administration subdivided in a patchwork fashion between the Privy Council Office, the Board of Trade, the Home Office, the Poor-law Board, the General Register Office, and a few other departments, was very properly condemned. The creation of a Public Health Department of the State, with a Minister of Health, has long been the dream, and will continue to be the aspiration, of all earnest sanitarians; and this cannot be effected without centralisation of health organisation and administration. This centralisation, however, so far as it has at present been carried out, is not only disappointing, but is even threatening to arrest sanitary progress. No one who believes in the really national importance of sanitary progress can cease, under present circumstances, to deplore the results of the transference of the Medical Department of the Privy Council to the Local Government Board. This amalgamation theoretically meant progress; practically it has resulted in stagnation, if not retrogression. It is now matter of history how the amalgamation cost the State the loss of the talented services of one of our most earnest sanitarians, and perhaps our most original thinker on public health; and how the Medical Department of the Local Government Board, as a power for usefulness, has become but the shadow of its former self as the Medical Department of the Privy Council.

Another Government department, which during the past forty years has had no inconsiderable influence in stimulating the public appreciation of the importance of sanitation, is now in some danger of similar emasculation, if not of actual amalgamation. The Registrar-General's office was created in 1837 by the late Earl RUSSELL, for the purpose of carrying out a national system of civil registration of marriages, births, and deaths, mainly out of deference to the wishes of the Nonconformists. The office has, however, wielded a powerfully beneficial influence in sanitary matters. In practice, and in public estimation, the Registrar-General, appointed to superintend civil registration, and to have the custody of the national legal records of marriages, births, and deaths, has come to be regarded as the authority, *par excellence*, on all matters of vital and mortal statistics. It is scarcely a secret that this official reputation has been based upon the original and scientific labours of that eminent vital statistician, Dr. WILLIAM FARR, who, for more than forty years, has been the chief of the Statistical Department of the Registrar-General's office. The public, indeed, in the fulness of their interest in the vital statistics which appear in the Weekly, Quarterly, and Annual Reports of the Registrar-General, are apt to lose sight of the legal aspect of the duties and responsibilities of that officer, which are not brought so prominently into notice, but must not be underrated. Until 1871 the Registrar-General officially addressed his reports to the Home Secretary, but by the Local Government Board Act of 1871, the General Register Office was in a measure affiliated to the Local Government Board, although up to the present time it has not been shorn of any of its independent volition and usefulness.

It has been recently stated, apparently on good authority, that Major GRAHAM, brother of the late Sir JAS. GRAHAM, who has, since 1842, held the appointment of Registrar-General, contemplates resignation and retirement during the present year. Although we have occasionally had to criticise adversely the course the Registrar-General has at times adopted in matters affecting our profession, it would be ungenerous not to admit the energy and administrative capacity he has brought to bear upon the gradual improvement of our civil records, with regard to their accuracy and completeness. Rumour points to an intention to bring the General Register Office more closely within the control of the Local Government Board. Rumour threatens it with loss of independence and identity, and with strangulation in the meshes of official pauperism, similar to that which befell the Medical Department of the Privy Council. It is not too soon to protest most earnestly against such a possibility. Warned by the result of the suppression of the health functions of the Privy Council, no effort should be spared to save the General Register Office as an independent source of public health information, pending the creation of a really influential Central Health Department.

Theoretically, there can be no question that more intimate relations should subsist between the Statistical Department of the General Register Office and the Central Health Department than those which now obtain between the office at Somerset House and the Medical Department of the Local Government Board. Under present circumstances, however, to bring the Registrar-General more closely within the deadening influence of the Local Government Board, probably due to its traditions of pauperism administration, would be disastrous to sanitary progress.

The Government, however, will soon be called upon to fill the vacancy caused by the approaching resignation of the present Registrar-General, and upon the choice of a successor to Major GRAHAM depends the future relations

of the Registrar-General's Department to public health. Making all due allowance for Ministerial and party temptations to use such an appointment as a reward for a political adherent, it will be a scandal if no other considerations control the selection of the new Registrar-General. From a Premier who has more than once paraded his interest in public health and sanitary progress, we may at least expect that the public as well as the political responsibility involved in selecting a new Registrar-General shall receive full consideration.

Reports, which we have reason to believe are unfounded, have been current that Dr. FARR is also about to retire. If, notwithstanding his forty years of laborious service, Dr. FARR has still the health and inclination for work, it is difficult to imagine that any Government would be so unmindful both of his claims and of his reputation at home and abroad as a vital statistician, as to set them aside in favour of a mere political nominee.

It is almost impossible to estimate too highly the importance of securing in the future Registrar-General due appreciation of the valuable assistance which our civil records may afford to sanitation. It appears to us, however, of even greater importance that the post should be so filled as to guarantee its independence, in order that the Reports of the Registrar-General may continue to command that entire confidence of the public which they have enjoyed during the past forty years, and which is so essential to their usefulness. Not until we have an effective Central Department for Health Administration, with a Minister of Health, can we afford to lose the independent existence of the Registrar-General's Department.

WHEN Parliament reassembles, it will be seen how far the policy of the guardians of St. George's Union is in harmony with the representative opinion of the Legislature; and whether the Local Government Board has acted wisely in supporting parochial meanness against a medical officer who, in this matter, represents the interests of the sick poor and the mature judgment of that section of his profession which is engaged in the administration of medical relief. It is well that a question which has been agitating the medical officers of Poor-law districts for years past should be raised, in a striking form, at a moment when Parliament may be reasonably expected to find time for its discussion. Whether the Department has acted with its usual prudence in allowing the issue to be thrust on public attention is a reflection we will not pursue. So far as the welfare of the poor and the cause of humanity, with economy, are concerned, there can be no reason to regret, but rather an unqualified satisfaction with, the conditions under which it has been raised. Mr. FENTON has not—as, we believe, the Secretary of the Local Government Board was at some trouble to explain to the President—either neglected his duty, or laid himself open to any charge of recklessness in the delicate duty of giving what the law calls "orders," and the Central Authority takes pains to explain are not "orders," but recommendations, for food. It was necessary to act judiciously, and to word the letter in which the decision of the Local Government Board was communicated to the guardians very carefully, because nothing in Mr. FENTON'S conduct as a medical officer could be found to justify the course taken. The guardians of St. George's Union were, individually and collectively, too influential to offend. They must be supported, and their medical officer consequently displaced; but it was expedient to proceed cautiously, because there was no reasonable excuse for the line of action to be pursued. Mr. FENTON was scarcely the man to submit humbly to the sacrifice, and it was not impossible he might have the support and countenance of the profession, which in his person had been studiously snubbed and insulted. It is satisfactory to know that all the facts and contingencies were present to the mind of the Local Government Board when it took action in this matter, because there can now be no hesitancy in picking up the gage which has been thrown down; and it is not only permissible but expedient to treat the case as one reserved, with the full consent of the Department, to form the basis of a temperate but strong appeal to the Government, the Legislature, and the public.

Stripped of its personalities, the question at issue is briefly who is to be the judge whether food and stimulants are to be employed in the treatment of disease? The Consolidated Order is plainly framed in recognition of the fact that these necessaries do form part of *treatment*, or the medical officer would not be furnished with printed forms with which to order them. He is not consulted or required to make any recommendation in connexion with ordinary relief! The theory seems to be that when a medical officer encounters a case in which food, or any other necessary, is indispensable, he shall give this opinion in writing, should it appear, or be represented, to him that the patient and his friends are unable to supply what is required in the case. The relieving officer does not, of course, presume to traverse the medical officer's professional judgment that so much beef—or whatever may have been recommended—is necessary, but he *does* delay the supply of the articles specified until he has satisfied himself that the pauper cannot procure them, or, in too many cases, until he has worried or starved the patient into compliance with the wish that he should be removed to the workhouse. This is a fair statement of the case, which will be accepted by both parties, and we are well content to rest our appeal upon the simple facts without colouring or intensifying them. The relieving officer may be a humane man, and only intent on discharging his duty; but, while he is practising the arts of the inquisitor, the patient is dying. The medical officer has not prescribed, or recommended, or "ordered" the food and necessaries until they were urgently required—it is not in this case alleged that he has done so,—and by withholding them the lay official courts the peril of manslaughter, with which crime a spirited medical officer would in the event certainly charge him. There could be nothing personal in this resolve; it is a purely official remedy for an official wrong.

The position we take up in the controversy is this: when a medical officer fills up one of the "orders" supplied to him by authority of the Local Government Board, it is the duty of the relieving officer and of the guardians to carry out his prescription without question and without delay. *After* this has been done, the Board of Guardians and their officials may, if they please, take the responsibility of starving the patient into submission to their desires with regard to his destiny. The medical profession has no more

direct concern with the policy of "*driving* paupers into the workhouse" than any other class of citizens. If the law sanctions the peril or sacrifice of life, if it permits guardians to squander the money of the ratepayers by making curable cases incurable, on this policy medical men, as such, have nothing to say; but neither the Local Government Board nor the guardians of St. George's or of any other union, can induce the profession to consent that this cruelty shall be committed with the connivance of the medical officers or under their sanction! If it be the settled resolve of boards of guardians to carry out the policy of coercion, and the Local Government Board is prepared to countenance the proceeding, other assistance must be found. It is, unhappily, impossible to control the individual action of some men who possess every other necessary qualification for the medical care of the poor except humanity, but we venture to hope that, even under the pressure of necessity, medical men with self-respect will decline to be made the catspaws of a policy at once reckless of life and money—in every way shortsighted and deplorable.

The reform needed is to recognise "necessaries" for the sick poor in their true character as a part of the remedial agents of treatment, and to place them directly under the control of the medical officers. If the relieving officer has reason to think they are given needlessly, let him be directed to bring the matter before the board of guardians, but withhold the power he now exercises of refusing supplies on his own authority. Supplement this arrangement by one authorising a medical officer to retire from the treatment of a case in which the board of guardians decide that his recommendations are not to be carried out. The question will then stand on a simple basis, and if the policy of the medical officer is at variance with that of the guardians of a union, he will be able to resign on a plain issue in the light of day, and under the protection of public opinion. That is not an impracticable suggestion, or one difficult to carry into effect. If Mr. FENTON'S enforced resignation should lead to the settlement of this important question, he will not have suffered in vain, and his last act in the service of the astute guardians of St. George's Union will, not less than the labours of the many years by which it has been preceded, be one of medical relief—to the sick poor and the profession of which he is a member.

THE discovery by Mr. W. H. POWER, one of the medical inspectors of the Local Government Board, of the dissemination of diphtheria by milk, is of equal importance, to the physician and the hygienist, with that made, a few years ago, by Mr. W. TAYLOR and Dr. BALLARD, independently of each other, of the dissemination of enteric fever by water. The occasion of the discovery was the serious localised outbreak of diphtheria which, in the earlier months of 1878, happened in Kilburn, and caused so much alarm to the inhabitants of north-western London. In consequence of representations made to the Local Government Board by medical practitioners of the affected locality, Mr. POWER was instructed to make inquiry as to the origin of the outbreak, and his elaborate report of the results of this inquiry has now (after a fashion) been made public. His report is a model of etiological investigation, to which no abstract can do justice, or, what is of greater importance, show the true nature of the evidence upon which the main conclusion of the report is founded, and the complexity of the conditions under which the investigation had to be pursued.

Briefly, it may be stated that the inquiry extended to 264 cases of diphtheria, occurring in 118 households, 38 of which cases were fatal. These cases occurred within a limited area, partly lying in the parish of Hampstead and partly in the parish of Marylebone. A careful inquiry into the several cases and their relationship established conclusively to Mr. POWER'S mind that contagion had played but an insignificant part in determining the local prevalence; that there had been no antecedent existence of throat disease in the locality, of which the diphtheria might have been deemed a further development; and that there could be no question of water-contamination as concerned in the outbreak, supposing that agency to be conceived. On the other hand, it was ascertained that the area of the outbreak very nearly coincided with an area in which, shortly previous to the outbreak, certain sewerage disturbances must have given rise to an unwholesome state of many of the houses within it. There were not wanting several apparent connexions between particular sewerage disturbances and particular incidence of diphtheria in households; but the more closely the study of this relationship was pursued, the clearer it became that unwholesome conditions arising out of deranged and defective sewerage would not account for the outbreak as a whole, although probably having some subsidiary part in it.

Now, early in the outbreak, Dr. THOMAS MORTON, of Kilburn, who had numerous patients suffering from diphtheria in the infected area, noticed that a great proportion of these patients consumed milk coming from one or other of two retailers, both having their milk from the same wholesale dealer; and it presently was impressed upon his mind, as he pushed his inquiries on this subject, that this community of milk consumption among his patients had some direct relationship with the prevalence of the disease. He brought his surmise under Mr. POWER'S consideration, and that gentleman frankly states that, at the first aspect, he regarded it as improbable, although he felt bound to subject it to examination. The result of that examination proved that Dr. MORTON'S evidence was well founded. Mr. POWER discovered that the incidence of diphtheria within the area of the outbreak upon the consumers of milk derived from a particular source was such as to forbid the assumption of its being accidental; and, moreover, that wherever this milk had gone, elsewhere than within the area of the outbreak under inquiry, there, within certain limits of time, diphtheria had occurred. In what manner the milk became infected with the diphtheria infection has not yet been determined, but Mr. POWER submitted an important suggestion to the Pathological Society on the subject, which we reported in our last week's impression, and which will be considered by a committee of the Society.

The conclusion of Mr. POWER concerns in a special manner medical officers of health, but the value of the conclusion can only be accurately understood, and the trustworthiness of the method of research by which it has been arrived at, from the report itself. And here we come to one of the strangest anomalies in the sanitary administration of the Local Government Board. The report, as all current

reports of its Medical Department on sanitary inquiry, is not to be obtained in the ordinary course of the publishing trade, official or other. Although presumably the inquiry was undertaken in the interests of the public, and the report is a printed paper, except to a few favoured individuals it is not issued, and difficulties so great are interposed in the way of its being obtained that not one in a hundred of the persons who ought to have, and would be glad to have, the report can obtain it. In its last Annual Report, the Local Government Board professes that the time has come when it must begin to exercise its educational functions in the sense of inoculating local authorities with such special knowledge as it possesses. Let us urge upon it that, as one element of these functions, it should issue reports of this class, if not all the printed reports of its medical inspectors, which cannot be purchased, to medical officers of health.

THE official utterances of the Russian Ministry of the Interior as to reported "plague" in the province of Astrakhan, so far as they have been made known by telegraph in this country, have unfortunately had the effect of involving in greater darkness a subject previously sufficiently obscure. With a view of obtaining some independent information on a matter which, if the original report be true, so seriously menaces Europe, we have endeavoured to obtain from trustworthy sources a knowledge of the events which have given rise to a panic in Astrakhan and spread alarm throughout Russia. The following summary of the results of our inquiry, while presenting a tolerably definite account of the occurrences in Astrakhan, will probably serve to clear up some of the apparent contradictions in the official and other accounts which have reached England regarding them.

In November last, towards the end of the month, as it would seem, a detachment of Cossacks, which had formed a part of the army of the Caucasus, returned to its quarters, Vetlianka, on the Volga, in the district of Jenotajevsk, province of Astrakhan. Soon after its arrival "fever" appeared among the men, and was reported as *typhus*, the belief being that the disease had been imported from the camps in the Caucasus, where the disease was prevalent when the detachment began its march homewards. A military medical officer sent to make inquiry as to this occurrence of "fever," reported that no typhus existed, but that two kinds of fever affected the detachment—namely, simple continued fever and inflammatory fever. Subsequent events proved that there had been an error in diagnosis, that whatever other fevers existed at Vetlianka, among them was one of an eminently contagious and most fatal character, and this form of fever it is averred was, as originally reported, typhus, or as the statements now have it, petechial typhus. The military authorities, thrown off their guard by the report of the medical officer sent to the spot, took no precautionary measures; the infection of typhus spread insidiously among the small population of Vetlianka, and during the last two days of December and first two days of January the result of the infection was shown by over a fourth of a population, not exceeding 600 persons, being suddenly prostrated by the disease, in a form so fatal that the greater number of the attacked (143 out of 195 sick) were reported to be dead on the morning of Jan. 3rd. This terrific outbreak of disease caused a panic in the village, and in the belief that "plague" had broken out, the population, military and non-military, fled in a body, carrying not only the news, but also the infection, to neighbouring villages, and into the towns of Astrakhan and Tsaritzyn, and the correspondents of the general press set the telegraph at work to convey the information to the Russian journals of the asserted reappearance of plague in Europe.

Under the alarm of the outbreak the population of the localities near to Vetlianka themselves took precautions for preventing communication with that village by placing armed volunteer guards on the several roads leading to it; and when the authorities of the province appeared upon the scene, it was held advisable, partly to meet popular apprehension, and partly from a belief that this was the proper course to pursue, to surround the place with troops, as a sanitary barrier, and to endeavour to cut off communications between the provinces of Astrakhan and Saratov. These facts having been reported to the Imperial Government, the measures taken were approved, and instructions given for developing the system of quarantine to the utmost, whilst medical inquiry was directed to be made as to the nature and extent of prevalence of the fatal disease. With respect to the former question, the malady was at first reported to be typhus, but the latest reports are curiously silent as to the character of the malady, and refer to it solely as "the disease." Moreover, a correspondent of the Russian print, the *Voice*, states that the scourge, whatever it be, is a new one, unknown to medicine, and incurable. With respect to the latter question, the disease is scattered over the whole of the river-side districts on the right bank of the Volga, from Astrakhan to Tsaritzyn, and within the borders of the province of Saratov.

These are the facts of the case so far as yet known, and it is clear that we must wait for further information before a definite opinion can be expressed upon them.

WISHING in all sincerity, at the advent of a new year, brighter days for the medical officers of both Services, we are glad to call attention to a letter published in our columns last week, page 67, from an experienced officer in the navy, which, though somewhat fragmentary, looks decidedly on the bright side of the question. We have been told repeatedly that the status of navy medical officers is very bad; in effect, that they are snubbed systematically, and that no such thing as equality in social life exists between them and their brother officers. But the letter tells a different tale, and the substance of it was written by a man who has passed more than twenty years in the service, and has served in almost every class of vessel, at almost every station, with comparatively little half-pay, *because* (and this is a great point) he has always accepted service whenever and whereever it has been offered. Can those who write about and inveigh against compulsory half-pay aver that they have always accepted service under all circumstances, except, of course, sickness?

The remarks as to pay contained in the same letter do not appear exaggerated. It is surely an undisputed fact that the surgeon is far better paid, even when he enters the service, than most of his comrades at the same mess; and in spite of all that has been said to the contrary, it is a mistake to

suppose that the majority of combatant officers are men with much in way of private means. There can be little doubt, indeed, that the pay and allowances are quite sufficient to cover the expenses epitomised by our correspondent.

The complaints made by juniors who have just entered about being "cribbed, cabined, and confined," are altogether puerile and beside the real question at issue. Everyone knows that he cannot take with him to sea a suite of chambers, or even the amount of cubic space allotted to a medical student at college or to a university undergraduate. But let him who doubts his powers of accommodating himself to narrow and sometimes gloomy quarters spend the first year of his professional career in the mercantile marine, and take a voyage or two to Australia, India, China, or the Cape. He will at the end thereof have learnt to know whether his general proclivities are nautical or not. If the former, and the necessary examination is passed, a sum of about £50 will be required for uniform, £10 for bedding, furniture, &c., and from £10 to £15 for instruments—say from £70 to £80 in all. We have already in former articles indicated with sufficient precision what are the current expenses afloat. During the term of residence at Netley, five shillings a day is allowed to each officer, but that sum is said to be insufficient, and it would be well if the future Director-General obtained some slight increase in the scale, or exerted his influence to reduce certain small but unnecessary items of expenditure that lead to bad habits in the future. A great deal having been said as to the hardship of half-pay, we have been at the pains to inquire particularly into this so-called crying grievance, and find that, as regards the juniors, no officer need at the present time be on half-pay for more than a few days; and more than this, a certain amount of full-pay leave is now frequently granted; so that a fleet-surgeon, for instance, who comes home in his ship after having been for some time on, say, the China station, can claim, and will obtain, seven or eight weeks' full-pay leave, and immediately afterwards join another ship in active employ.

In giving these categorical details we are at the same time replying to questions that have been put to us in consequence of the letter that appeared last week, and are glad to be enabled to put on record particulars so favourable, it being our earnest desire to show, as it is most undoubtedly our belief, that the service is by no means as black as it has been lately painted.

Annotations.

"Ne quid nimis."

CYPRUS.

A MEDICAL OFFICER writes to us from the island last week: "We are rejoicing here in the intimation that we are to receive some extra pay (£10 a month) for undertaking civil work in addition to our military duties. Everything in the medical line is very backward. We want dispensaries, hospitals, trained nurses, supplies of European medicines and instruments; vaccination must be looked to, native operators trained, and vaccine stations formed. All these are, however, practicable with energy, labour, and some outlay of capital. Unfortunately the island is at present very poor; some considerable time must therefore elapse before its resources are developed to an extent sufficient to pay its many requirements, sanitary and other. The formation of a harbour and railway connecting the seaport with the principal towns will be a great stimulus to trade; in these latter drainage and conservancy must be looked to at once. So you see there is plenty of work for us all, from the Lord High Commissioner and his energetic medical chief, Sir Anthony Home, downwards. The weather at present is delightful, though we have had a very scanty rainfall, and the troops are very healthy."

THE REGISTRAR OF THE UNIVERSITY OF LONDON.

AT a meeting of the Senate of the University of London, held on the 27th of last November, a letter was read from Dr. Carpenter, C.B., in which he tendered his resignation of the office of Registrar to the University, his resignation to take place on the 31st of the ensuing May. "My health," says Dr. Carpenter, "has been so seriously affected during the last two summers by the pressure of the duties and responsibilities which the crowding together of our largest examinations at that season always lays upon the Registrar, that, although sure this pressure will be lightened in every possible way by the zealous and able co-operation of Mr. Milman and Mr. Dowse, I shrink from again subjecting myself to it, with the augmentations to be anticipated from the admission of women to degrees, as well as from the ordinary increment in the number of candidates." Dr. Carpenter also mentions, incidentally, in his letter that he has served the University as examiner and registrar during four-fifths of its term of existence.

Dr. Carpenter's resignation will be regarded as a calamity by all well-wishers of the University which he has served with such judgment and such unswerving loyalty. The office of Registrar must always be one of great importance, and involving great responsibilities, but especially has this been the case during the period of growth and development which the University has passed through while Dr. Carpenter has been practically at the helm. The growth of the University may be fairly measured by the numbers which have presented themselves for the Matriculation examination. These averaged for the first twenty-six years of the existence of the University 210 per annum. Of late years between 600 and 700 candidates have presented themselves at each of the two Matriculation examinations, or between 1200 and 1400 per annum. The University of London has become a great educational power in every branch of learning, and in no branch more than in medicine. As a public servant Dr. Carpenter has deserved well of his country, and we doubt not that the Home Secretary will allow him his full salary for a retiring pension.

PLASTER-OF-PARIS BREAD.

DR. SEDGWICK SAUNDERS simply discharged his public duty by laying before the Lord Mayor a report on a quantity of "flour" offered for sale in the City of London, and containing so large a proportion of plaster of Paris that it was possible to cast the material in a mould. Sir Charles Whetham acted with less public spirit than might have been expected of him in refusing to condemn it. His lordship laid too much stress on the legal requirement that sale of the article should be proved. It is easy to understand the difficulty, because, for anything that was shown in court, the mixture may not have been intended for food. No evidence of its sale or use for making bread was submitted, and it would clearly be embarrassing to jump to a conclusion on a mere statement to the effect that it was so employed. It is necessary to recognise this important omission. At the same time it must be manifest that had there been the slightest disposition on the part of the chief

magistrate of the City of London to help the cause of public health and prevent mischief the same course might have been pursued which a well-constituted executive authority is always ready to adopt with a view to aid the interests of peace and prosperity. An officer might have been sent to inquire into the matter, and the flour would then doubtless have been condemned. It is an important circumstance that this course did not suggest itself to the Lord Mayor or his advisers. The attempt to throw the onus of prosecution on a medical officer of health was absurd, and can only be regarded as proof of ignorance or obstinacy. The matter is to be brought again under the notice of the chief magistrate, and we may hope he will then be better advised. In the interim, however, it is beyond doubt that bread made from this deleterious compound has been sold, and even fatal consequences may yet ensue. Dr. Sedgwick Saunders has no responsibility in the matter, but a grave reflection must fall on the authority by whom timely assistance was refused.

THE WINTER EXHIBITION OF THE ROYAL ACADEMY.

A COLLECTION of extraordinary interest, for which we are indebted to the liberality of a large number of private owners in lending from their stores, is now on view at Burlington House. It comprises paintings in oil by old masters and by deceased masters of the British school, miniatures, and drawings. It is these latter especially which command our admiration. The miniatures comprise the choicest specimens of this "lost art" by Samuel Cooper, Cosway, Hilliard, Oliver, and other representatives, and the portraits may be said to illustrate the principal parts of the history of England. The drawings include examples from the pencils of upwards of one hundred of the most renowned artists. Raphael, Da Vinci, Michel Angelo, Titian, Holbein, Vandyke, Flaxman, Claude Lorraine, are amongst those most profusely represented on the walls. Perhaps, from a medical point of view, the drawings of Lionardo da Vinci will attract the most attention. They include a large number of anatomical studies, in which the scrupulous regard for accuracy of this painter is well shown. The endless pains to be true which such an artist took is evidenced especially by one in which the temporal artery is drawn, from its origin to its distribution, with its exact relation to the temporal bone and zygomatic arch. This is one of the very few arteries, by the way, which the painter has to deal with.

PRACTICAL CHARITY.

A SOCIETY has existed in London now some twenty years that does so much in a practical, though very unostentatious, way that we think its existence should be more widely known to those of our readers who live in the quarters of the metropolis forming the society's working-grounds. The so-called almoners of the "Society for the Relief of Distress" are composed chiefly of men in the upper ranks of life, some four or five of them being colonels in the army, as many titled ladies, and more the sons of wealthy bankers, of members of the Upper House, and some few professional men whose time and income are not fully occupied. The working expenses of the society are defrayed by the workers themselves. When the name and address of a distressed family are forwarded to them, the honorary secretary for the week (there are three of these officers) sends one of the almoners to inquire into the case, and no relief is given until particulars are in this way obtained by intelligent men and women, no salaried persons being employed. Relief is then given in the form that appears most suitable. The husband, if he be a skilled mechanic, is enabled to resume work, by taking his tools out of pawn, or the family is relieved by getting one of the children into some school, or the wife, if found to be *enceinte*, is put into a lying-in hospital, and so on. Funds are usually forthcoming to enable the society to prosecute its labours usefully and continuously. But in times of universal distress it is desirable that the public should be made aware of the good work that is being done in so eminently quiet a way. And we are induced to call the attention of our readers to this particular society because several of its most distinguished members have reported in very warm and grateful terms of the valuable aid they have often received from medical men, and more particularly from parochial medical officers.

THE CLINICAL SOCIETY.

THE annual general meeting of the Clinical Society on the 10th inst. did not pass without a protest being made from one of the members against the mode of election of officers in vogue at this Society, as, indeed, at all the other Medical Societies of the metropolis. The report of the Council having been read by the hon. secretary (Dr. Cayley), and its adoption, moved by Dr. Stewart, seconded by Dr. Southey, being carried, the scrutineers (Dr. De Havilland Hall and Mr. W. Johnson Smith) reported the result of the ballot, which, as usual, resulted in the election of all those gentlemen who were nominated by the retiring Council to succeed them, and whose names will be found in our issue for Jan. 4th, page 25. Mr. G. Brown thereupon rose, and having elicited from the chairman that the list was identical with that previously circulated among the members, proceeded to say that in his opinion such a mode of election was more an election in name than anything else, and he suggested that more names should be submitted by the Council than sufficient to fill up its vacant seats, and that thus an opportunity should be given for members to exercise some right in selection. There were members in the list submitted who were notable for their absence from the meetings of the Society, although they might attend the Council meetings, while at the same time there were others who, more active in the actual work of the Society, had yet no seat on the Council. The Chairman, ruling that Mr. Brown was out of order, pointed out that, by law 57, any suggestions involving alterations in the laws should be made to the Council. Subsequently Mr. Heath, in returning thanks for the retiring officers of Council, pointed out that if Mr. Brown had exercised his privilege of speaking on the reception of the report he would have been perfectly in order, but he rose too late—after the report had been adopted.

Here the matter dropped; but it is worth reverting to, so as to correct any false impressions that may be current concerning these elections. The Clinical Society has been established some twelve years. It is the youngest of the four societies which now meet in the rooms belonging to the oldest of the four, in Berners-street. Its procedure then is, to a certain extent, based upon that of its seniors, and the three have each in turn been modelled by that of the oldest—the Royal Medical and Chirurgical Society. Custom and precedent alone do not, however, sanction the employment of methods inherently wrong in principle; and were this the case in the mode of election at these societies it would, indeed, be well to have this speedily altered. It may be pointed out, however, that, in the first place, the process of selection has been very carefully followed by the Council in preparing the list of members recommended to fill the vacant seats, and that in this matter the Society delegates the duty incumbent upon it to its Council, confident that the trust so given will not be abused. But more than this. The lists as circulated contain simply the recommendations of the Council, and a majority of the members may, if they choose, decline to accept such recommendations. There is nothing in the laws of the Society to prevent a member

from erasing any of the names so submitted to him, or from substituting others in lieu of those removed. And that contests so arising are anticipated may be seen by the fact that in the 24th law of the Society it is enacted that, "in the event of equality of suffrage, the President shall determine by lot."

The other business of the annual meeting consisted in a vote of thanks to the retiring President, Mr. Callender, for his conduct in the chair, which was moved by Mr. MacCormac, seconded by Mr. Howse, and carried by acclamation, the chairman (Dr. Murchison) undertaking to convey to Mr. Callender, on his return from America, the expression of thanks. Mr. Hulke moved the cordial thanks of the Society to Dr. E. H. Greenhow for his valuable services during his term of office as treasurer to the Society, a vote which would be concurred in by all who knew the unflagging and unwearied zeal which that gentleman had devoted to the Clinical Society, especially at its inception. Dr. Cholmeley, in seconding the motion, said that the only consolation the Society would have in losing Dr. Greenhow as treasurer would be the pleasure and good fortune of having him to preside over them. Dr. Murchison, in putting the motion, which was unanimously carried, said that the Society was fortunate in securing Dr. Greenhow as President, for no one had worked more zealously on the Society's behalf. Dr. Greenhow briefly acknowledged the vote, saying that he had taken great interest in the Society from its commencement, and hoped to retain that interest in the future. Mr. Soelberg Wells moved, and Dr. Yeo seconded, a vote of thanks to the retiring Vice-Presidents, Secretary, and other retiring members of Council, Dr. Yeo especially alluding to the labours of Dr. Cayley. The vote was acknowledged by Mr. Heath, and the Society adjourned.

A PARISH WITHOUT MEDICAL OFFICERS.

THE guardians of Yarmouth are penny-wise and pound-foolish. But they are passing through an experience which may teach them a truer economy. Their medical officers resigned on the score of inadequate remuneration for their services and generally ungenerous treatment on the part of the guardians. A gentleman from a distance, Mr. M'Naughton, came to fill the vacant office at £80 a year; but, after hearing all the facts of the case, he retired. But for the kindness of one of the gentlemen who have resigned, the Board would be in the dilemma of having a district of over 40,000 inhabitants without any medical officers for the poor. It is too customary to make light of the diseases of the poor and of the services by which they are cured or mitigated. The suspension of such services for a week or two would dispel that delusion and painfully reveal the responsibility of those whose parsimony brought it about. The *Yarmouth Gazette* of the 11th publishes a good report of the meeting of the Board at which this "medical difficulty," as it is called, was discussed. On the whole, we have little reason to complain of the general tone of the discussion. We can afford to disregard the remarks of one guardian who spoke of "picketing." Medical men are to be blamed in connexion with the low public estimate of their services; but they are to be blamed, not for asserting their just claims, but for having been far too slow to do so. The guardians finally had two resolutions put before them—one to offer £105, the other £110, for the work to be done in each of two parishes. There are practically no extras in the case. One guardian estimated that with a salary of £100 a medical man would have, after paying expenses, 2*s.* 6*d.* a day for himself! The chairman thought he might get 4*s.* a day, and, himself a medical man, not only proposed the smaller salary, but gave his casting vote for it in an equal division. We shall be curious to see whether the proposition of the chairman succeeds. It certainly does not deserve to do so. Meantime the Board should not forget that Mr. Lettis, who is kindly doing the work in the interim, reports himself unable to see all the cases.

THE SANITARY STATE OF THE DEWSBURY REGISTRATION DISTRICT.

DR. THORNE THORNE, in a recent report, contends that the Dewsbury local authority has been guilty of persistent default of duty in respect to many of the most important sanitary functions imposed upon it by law. Even such work as it has done in respect to sewerage would appear to have been done only because formal complaint had been lodged against the corporation in the matter. It may be inconvenient for the corporation that the Local Government Board should have the power to step in and make inquiry when it thinks fit as to its sanitary doings; but were it not for this power of the central authority the population would be left absolutely at the mercy of such gross sanitary neglect as Dr. Thorne Thorne exposes. The inquiry into the state of the district would seem to have been called for by the excessive prevalence of fatal infectious diseases in it. This district is the centre of a great textile manufacture, known locally, if we mistake not, as "shoddy." It contains several populous towns and villages, and it has risen rapidly in wealth. Sanitary administration has kept no sort of progress with the growth of the several centres of population, and the general neglect of the common requirements of decency in filth-disposal is shocking to contemplate. It is true that formal rules exist, as bye-laws, in the majority of places, for the regulation of many things affecting the sanitary welfare of the people, but these rules do not appear to be acted upon any more than the general law from which they derive their validity. It will hardly be possible for the local authorities in the Dewsbury registration district, after the publication of Dr. Thorne Thorne's report, to persist any longer in the neglect of systematic action which has hitherto marked the treatment of sanitary matters.

MOLESCHOTT IN ROME.

ROME has made many conquests in her time, but few so profitable to herself as that by which she now numbers the great Dutch physiologist among the Senatus of her University. Moleschott was brought at the instance of Count Cavour—that farseeing and indefatigable labourer for his country's good—from Zürich to Turin, and, after eighteen years of brilliant and successful tuition in the sub-Alpine capital, is now transferred to Rome. A few days ago he inaugurated his new career in the Sapienza before a numerous and distinguished audience, and his reception on entering the room was worthy of any consular ovation or imperial triumph of old. When at last the enthusiastic cheering had subsided he began the first lecture of his physiological course, and, after a graceful exordium—none the less effective that its deliverance was occasionally broken by emotion,—he launched with masterly power into his subject. He traced the three distinct stages of scientific thought till the era of Bacon, Descartes, and Galileo, by whose combined labours experiment was made the basis of inductive research—a basis on which all that is sound in modern science has been reared. Number, weight, measure—such was the trinity of observation out of which emerged the unity of science. He next proceeded to define the field of physiology, and then to demonstrate its importance. In this latter connexion he showed, by a splendid historical induction, how the best physicians had been first devoted physiologists, and how they often remained so, even amid the calls of professional practice. He concluded by illustrating the points in which physiology touches the physical and moral sciences, show-

ing the interdependence of each, and, from the humanistic point of view, the superiority of physiology to all. His peroration was very eloquent, especially in its animated appeal to the Roman youth to push ever forward to the front, and to make themselves, in the nobler warfare of enlightenment against ignorance, worthy of the martial supremacy of the "brave days of old."

OVERCROWDING IN WORKHOUSES.

A RECENT inquiry has shown that the condition of many of the principal workhouses is such as to give rise to grave anxiety. The accommodation provided is wholly inadequate to meet the requirements of an exceptional demand for relief such as that through which we are now passing. The difficulty is doubtless increased by obstinate adherence to the policy of refusing out-door assistance. If this coercive method is approved by the mature judgment of the Legislature, which must certainly be moved to express a definitive opinion, it will probably be necessary to enlarge the workhouses. Meanwhile, it is not to be tolerated that the sick should be laid on the floor of imperfectly furnished rooms, even though these may not, as sometimes happens, be damp. The reckless treatment meted out to the poor by guardians intent only on reducing the poor-rates is not humane and it is not economical. The best way to save the pockets of the ratepayers is to cure the curable with the greatest possible celerity and as completely as may be. These results can only be compassed by the judiciously liberal use of necessary appliances, and by the supply of such comforts as fall legitimately under the head of "necessaries." A high mortality may be a matter of indifference to the "guardians of the poor," but it can scarcely be disregarded by public opinion. The population, perhaps, increases with inconvenient rapidity, but it is not yet recognised as a part of the Poor-law policy to check the increment by wanton neglect and cruelty to those who are pauperised by disease.

NEW VIEWS ON ADDISON'S DISEASE.

IT is not a little singular that, in spite of a considerable amount of observation, the pathology of Addison's disease should yet remain so shrouded in obscurity. The valuable contributions of Drs. Greenhow and Wilks to the subject have certainly gone far to clear up the obscurity surrounding it, and the former, in his Croonian lectures a few years since, presented us with a fair summary of the prevalent knowledge of its pathogeny. From these and other writings, it must be concluded that the symptoms of the disease are due to the involvement of the abdominal sympathetic in the inflammatory and degenerative process which the suprarenal capsules are found invariably to have undergone in Addison's disease. Whether this change be strictly "tubercular" or not, is not of great importance, seeing that the term "tubercle" at the present day is used in so many different senses by different schools of pathologists. It may be remarked, in passing, that a recent writer in the *Archives de Médecine* applies the term "suprarenal phthisis" to the lesion, which he thus contrasts with the well-known "renal phthisis," or chronic scrofulous pyelitis. Some novel views were propounded at a recent meeting of the Glasgow Medico-Chirurgical Society, which, however, did not receive general assent. They dealt rather with the relationships of Addison's disease than with its pathology, and were contributed by Dr. McCall Anderson, their object being to show that vitiligo and alopecia areata were pathogenetically connected with Addison's disease—all being, he maintained, alike dependent on perverted function of the sympathetic nerve. The occurrence of a few cases in which the two skin affections named had been found associated with Addison's disease seems to have been the chief ground urged in support of a rather hasty and seemingly unnecessary conclusion. It should never be forgotten that the cutaneous pigmentation is but a subsidiary phenomenon in the symptomatology of Addison's disease, and it is taking a very limited view of a grave and obscure derangement of the chief portion of the sympathetic system to ally it with some cutaneous affections which are presumed to depend on disorder of the sympathetic nerve. There is yet much work to be done to elucidate the precise changes in the abdominal sympathetic and their association with the suprarenal affection before we can see clearly the manner in which the suprarenal bodies react upon this important nerve centre; but it would be as reasonable to ally the limited cutaneous affections above-named with diabetes or with any other general affection apparently dependent on sympathetic nerve-derangement as to rank them with Addison's disease. The hope expressed by one member at the same meeting that the day would come when removal of the diseased capsules in Addison's disease would be possible, is almost as wide of the mark as the contention of the author of the paper. Neither the views of the one nor the hopes of the other can be entertained seriously in the present state of knowledge, nor are they likely to be confirmed or fulfilled in the future.

FRACTURED RIBS IN LUNATIC ASYLUMS.

ANOTHER case of fractured ribs in a lunatic asylum has occurred, and will serve to point the moral of the question whether it is expedient to allow post-mortem examinations to be made for purely scientific purposes without first taking measures to ascertain that there is no ground for a legal inquiry. This is not a matter in which the officials of asylums are primarily concerned, except in so far as it may be a precaution taken in their interest. It is probably very rarely indeed that a lunatic is maltreated or even injured by "accident" *at* an asylum. The cases of "fractured ribs in asylums" are generally brought into these establishments, and not discovered until after death. The method of restraining lunatics and "imbeciles" in workhouses and private families is by no means satisfactory, and it would probably be hailed as a welcome safeguard of the repute of attendants in public institutions for the custody of the insane if provision were made, by the presence of an independent practitioner at every post-mortem examination, or in some other way, for inspecting the bodies of patients dying in asylums, with a view to ascertain that they bear no traces of injury, "accidental" or otherwise.

A REMARKABLE INQUEST.

A MOST remarkable inquest at Leamington is reported in the *Stratford-on-Avon Free Press*, touching the death of a new-born, full-termed infant, found in a dark cellar, wrapped in a flannel petticoat. The mother of the child confessed to her maternity. The child, moreover, is said to have had various marks on it, particularly an incised wound over the jugular vein, and the mark as of a cord or string round the neck. The mother denied having murdered the child, and said it never cried or breathed. What further evidence could be desired than this? The remarkable part of the inquiry is, that the Coroner of Leamington thought it not a case for a post-mortem examination; and the Mayor, on the strength of the Coroner's opinion, also decided against a post-mortem.

The Coroner's behaviour in this case represents his general action. He has opinions of his own in such cases—particularly this one, that the evidence of medical jurists, notwithstanding the proof of live birth, always breaks down in such cases. As therefore you cannot prove a child to have lived, it is a waste of time and money to inquire if it has been murdered. Under these circumstances, though admitting the suspiciousness of the appearances in this case, his general rule saved him

from an unpleasant investigation. Unfortunately he did not convey the satisfaction which he feels with his own judgment to the minds of the jury. The foreman remarked that he thought there should have been a post-mortem; and the jury came to the lame conclusion that there was no evidence that the child was born alive. It is to be hoped that the foreman of the jury in the next similar case will insist on a post-mortem.

THE UNIVERSITY OF LONDON.

THE meeting of Convocation on Tuesday last, the 14th instant, was very thinly attended. Medical graduates were conspicuous by their absence; nor did the business contain any questions bearing upon medical education, the chief matter discussed being a motion by Mr. Magnus, recommending that the Senate should institute examinations in the Theory and Practice of Education, open to graduates of the university. But an amendment, referring the question to the Annual Committee for inquiry and report, was carried by a large majority. Mr. Magnus considered that some scheme of examination analogous to that instituted in Sanitary Science would be both desirable and beneficial if applied to those engaged in the profession of teaching.

THE CREMATION CRAZE.

WE are not surprised to find that considerable indignation has been occasioned by the attempt to establish a cremation apparatus near Woking. When, some years ago, the practice of burning old coffins and remains of mortality was rife in Bunhill-fields the neighbours objected, and the feelings of friends of deceased persons buried in that locality were outraged. Time changes many things, but we question whether it has yet so completely obliterated the sense of decency as to enable the people of this country to tolerate the notion of burning their dead. There is, unquestionably, much that is revolting in this proposal, and if, as we contended last week, it is both needless and perilous to resort to the expedient, there is nothing to compel, or even to justify, its adoption. *The Times* of Wednesday had some sensible remarks on the subject, which we trust will receive the attention they deserve. It is pleasant to see that our lay contemporary takes substantially the same view of the matter which we have propounded, and which must in the end, we believe, be approved.

TRICHINOSIS IN SWITZERLAND.

THE Swiss "Local Government Board" has addressed to all the cantonal authorities a circular, admonishing them that, according to official reports, there have just been detected in Thionville (Alsace-Lorraine) large numbers of the trichina spiralis in the ham imported from America. The importation into Switzerland and the consumption of ham imperfectly cured, or almost fresh, have lately reached such proportions as to rouse the attention of the "Local Government Board," which has accordingly appointed a commission to decide upon the precautionary measures to be taken. Meanwhile it invites the cantonal authorities to warn the population against the consumption of American ham, especially in the semi-raw state, and to arm the police with discretionary powers over the sale of the article.

CASE OF THE PRISONER NOLAN.

WE are requested by the committee appointed by the Home Office to investigate this case to state that the paragraph which appeared last week in the pages of a contemporary, and which was copied by some of the morning papers, is inaccurate. The committee have neither "completed their investigations" nor "prepared their report, nor have they yet come to any agreement as to its contents.

SIGNOR LEOPOLD TARANTINI, one of the ablest and most accomplished pleaders at the Italian bar, has appealed to the Procurator-General for an inquiry, conducted by distinguished medico-psychologists, into "the physico-moral state" of John Passanante, the would-be assassin of King Humbert. Italy has done sound scientific work in determining the physical basis of intellectual and moral disease, and, to the honour of her bar be it said, the medico-psychologist is always listened to with respect by the judicial bench as well as by counsel. Whether, or to what extent, Passanante was the victim of intellectual hallucination, is the problem his advocate wants to submit to a commission in lunacy, and there is little doubt that should (as is likely) his request be granted, the solution of the problem in question will give occasion to a highly instructive as well as interesting study in a field where science is steadily encroaching on legal precedent.

BY the decease of Mr. Tyrrell, a surgical vacancy has arisen in the Mater Misericordiæ Hospital, Dublin, and for which there are numerous candidates. Among the names spoken of may be mentioned those of Mr. Mapother (Vice-President of the College of Surgeons), Mr. O'Leay, and Mr. Hugh Kennedy, assistant-surgeon to the hospital. Mr. Kennedy is connected with the Ledwich School of Medicine, and as a private teacher has obtained considerable success.

DR. JAMES GEORGE BEANEY, of Victoria, commissioned to inspect the hospitals and medical schools of the united kingdom, and to report to the government of his colony, varied the severity of his duties by giving a banquet to his professional and other friends in Dublin on the 9th inst. The speeches—to say nothing of the *menu*—published in the *Irish Times*, make us regret that we were not there in the good company of the Lord Mayor, Dr. Gordon, Professor Haughton, Dr. Rawdon Macnamara, &c.

AT last the result of the fifth annual collection made last November on behalf of the Dublin Hospital Sunday Fund has been made known. The total amount to the credit of the fund comes to £4232 10*s.* 11*d.*, being an increase of upwards of £300 over that of the preceding year. The proceeds will be divided among the fifteen institutions which participated in the fund on the last occasion.

WE learn from the *Echo* that Davos-Platz has been cried up to some purpose in the journals, inasmuch as 650 invalids are now lodged there, an increase of 160 as compared with the winter of 1877-8; that the hotels are quite full, but that "the uninterrupted blue sky of the advancing Davos winter has not appeared this season with its accustomed regularity."

ANOTHER meeting of the Committee of Reference appointed under the Conjoint Scheme was, we understand, held at the Royal College of Surgeons on the 16th instant, to further consider the reports to the several medical authorities on the regulations for carrying out the scheme.

AT the meeting of the Pathological Society on Tuesday next, the 21st inst., the chair will be taken by the newly-elected President, Mr. Jonathan Hutchinson.

PROFESSOR HUMPHRY will deliver the biennial oration in memory of John Hunter, in the theatre of the Royal College of Surgeons, on the 14th proximo.

Correspondence.

"Audi alteram partem."

LUNG MISCHIEF ARRESTED BY OPERATIVE INTERFERENCE.

To the Editor of THE LANCET.

SIR,—The attention which you draw to the above subject in some editorial comments on Mr. Bryant's cases, published in the "Mirror" at pages 10 and 51, in THE LANCET of the 4th and 11th inst., is most appropriate, and I should hope most surgeons could bring forward evidence of the value of the treatment there recommended. I can give a pertinent illustration.

Many years ago I saw, in consultation with Mr. Lane of Victoria Park-square, a lad of twenty, the subject of suppurative disorganisation of one foot. On investigation there was also dulness over the apex of the left lung, with cough. I advised immediate amputation at the ankle-joint. On the following day the late Dr. Daldy called upon me and expressed his surprise and consternation at my proposal. He, it appeared, had been previously consulted concerning the patient's chest, and believed that amputation would hasten the inevitable end. I assured him that I took quite an opposite view of the case, and that the very existence of lung complication was a strong argument in favour of amputation. He yielded to my view, and I subsequently amputated the foot. The chest symptoms soon vanished. For years afterwards, whenever my much-respected friend Dr. Daldy and I met, he rarely omitted to allude to the case, and to congratulate me on the result of the amputation.

What the precise condition of the lung was I do not pretend to say. The important point of the subject under consideration is to endeavour to determine what degree of local healing is compatible with the resolution or repair of lung complication. We should desire both, as it were, to proceed *pari passu* towards recovery. This fortunate state of things will probably only occasionally take place; but, on the other hand, the lung disease, if already far advanced, will proceed steadily to a fatal termination with an absence of repair at the seat of operation, because valuable time and the opportunity for operative interference have been lost. At all times it would be desirable to reduce the extent of required local repair to a minimum; amputation would be preferable to excision, for example.

Your obedient servant,

Jan. 15th, 1879. C. F. MAUNDER.

TREATMENT OF DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—My attention has been drawn to the letter in your journal of the 28th December, signed "C. R.," in which you are accused of not doing justice to Dr. Sealy for his skill in the treatment of the patients in Princess Mary's Home who suffered from diphtheria. His skill appeared in treatment of that disease with the tincture of iron internally, and the application of Condy's fluid to the throat. The author of the said letter shows a very imperfect knowledge of the literature of diphtheria in supposing that Dr. Sealy originated that treatment, as I had the satisfaction of bringing it under the notice of the profession many years ago in a paper published in the *London Medical Review*, in which I pointed out its remarkable success in curing the disease. My paper was translated into French, and published at Nice. Mr. Condy reprinted it by my permission, and circulated it widely in England. Since that time I have had extensive opportunities of attending diphtheria, and of proving the uniform success of the treatment referred to. I was in consequence induced to publish a new edition of my paper with cases, along with my observations on erysipelas, a copy of which I sent to you, but you have not condescended to acknowledge the receipt of it. I have no hesitation in asserting that the treatment I have recommended is the most successful that has yet been suggested in diphtheria.

In the article published in your journal of Dec. 21st, on the subject of the outbreak of diphtheria in the Princess Mary's Home, the author seems at a loss to account for its appearance, and very erroneously attributes it to a lady with sore-throat—of what kind is not stated—having "*probably kissed some of the children.*" Why such a chimerical cause should have been assigned for its appearance is difficult to imagine, when the real cause is so obvious from the facts stated in the paper itself—namely, the crowding, or, rather, the overcrowding, "there being only 200 cubic feet allowed to each child," the imperfect system of drainage, the night-soil being removed to so short a distance from the domiciles, the offensive smell arising from ground in the immediate proximity and from the bath-pipe. I have never met with a well-authenticated instance of diphtheria being communicated by one individual to another who had not been exposed to the same polluted atmosphere, and I don't believe in the absurd idea that it can be conveyed from one person to another by means of a kiss. In my opinion it may as well be said that drowning can be produced by kissing a person who has fallen in the water. It is, therefore, unfortunate that the Prime Minister should have committed the error of stating that the much lamented Princess Alice fell a victim to having kissed her son. She unquestionably suffered from being exposed to the same contaminating influence from which the other members of her family suffered, and, for a time, through the strength of her constitution, she was enabled to resist its effect; but her system, weakened by anxiety and continued watching, sank under the virulence of the disease at last. It is not unusual to see several members of a family affected in succession with diphtheria. But this is no proof of infection; it only shows that the disease is in the locality, and the weaker, generally, succumbs first; then the others. I have met with many instances of this; but in every case I have been able to trace the cause to an offensive smell. Therefore, in every case of diphtheria, its cause should be investigated, and means taken to check its extending. And Condy's fluid is by far the most effectual means of doing so. It should be poured down the soil- and waste-pipes, and the different apartments should be fumigated with it. This is most effectually accomplished by putting two parts of it into an earthenware dish, along with one part of strong sulphuric acid, when immediately fumes will arise, which destroy smell, and produce a faint but agreeable odour of sea-water, and completely purifies the locality.

I am, Sir, yours, &c.,

CHARLES BELL, M.D., F.R.C.P. EDIN.

Edinburgh, Dec. 31st, 1878.

LISTON AND WATER-DRESSING.

To the Editor of THE LANCET.

SIR,—I was much pleased with the letter of Mr. Erichsen in your last issue relative to Liston's method of using "water-dressings" in the treatment of large incised wounds, and having had the great privilege of acting as surgical dresser under Mr. Liston during 1839 for several months, it affords me great pleasure to bear testimony to the excellence of his method, so graphically described by Mr. Erichsen, and so persistently practised by Mr. Liston during my studentship at University College Hospital.

For a provincial surgeon, a large amount of operative surgery has fallen to my lot, and I have no reason to regret the use of the "water-dressings" taught me by my eminent surgical preceptor. No other method can be more simple, cleanly, or effective, and, with the exception of the addition of the elastic "drainage-tube," I have practised Liston's method of "water-dressings" for the past forty years with most encouraging success. I find no treatment equal to the "water-dressings" for old chronic ulcers of the legs, which, unfortunately, crowd the hospital wards of our union infirmaries, and, with the addition of "skin-grafting," a large percentage of cures are rapidly effected; and I thoroughly endorse what Surgeon-Major Robinson, of the Scots Guards, says—viz., "My experience of cold-water dressing and irrigation to wounds has been so satisfactory that I should be loth to adopt any substitute without very cogent evidence of superiority."

I am, Sir, yours obediently,

EDWIN MORRIS, M.D., F.R.C.S. Eng.,
Surgeon to the Spalding Union Infirmary and Dispensary.

Spalding, January 13th, 1879.

PARIS.

(From our own Correspondent.)

A COMMISSION, composed of MM. Robin, Lasègue, Bertrand, Legrand du Saulle, Bucquet, and De Harambure, has been named to examine the titles of candidates for the post of physician in the different asylums for the insane which are situated in the department of the Seine. Several vacancies have of late occurred in these establishments, and at Bicêtre; one has been unoccupied since the death of M. Berthier, which occurred fifteen months ago. It was at one time proposed to institute a competitive examination for these posts, but the project has been abandoned.

On the 12th inst. the professors of the Faculty entertained M. Bardoux, Minister of Public Instruction, at a banquet offered to him in token of the gratitude felt by the Faculty to the Minister for the important services which he has of late rendered to it. The ceremony took place in the handsome Salle des Thèses, which was decorated with the superb tapestries given by Louis XIV. to the Royal Academy of Surgery. The banquet was followed by a reception, to which all the *agrégés* of the Faculty were invited, and festivities were continued to a late hour.

The election of the *titulaires* of the chairs of Diseases of Children and of Ophthalmology, which have lately been instituted, are to take place shortly. It is probable that M. Parrot, the celebrated physician of Ste. Eugénie, will be elected to the former, while M. Panas, of Lariboisière, will be chosen for the latter. By the nomination of M. Parrot to this new chair the Professorship of the History of Medicine, which he held up to this date, will become vacant. Four *agrégés* have presented their titles for election—MM. Hayem, Bouchard, Laboulbène, and Ollivier. The chair of the History of Medicine is generally considered at the Paris Faculty as the stepping-stone to others more specially adapted to the capacities of the professor who holds it for the time being. But it is the intention of the *doyen* that this state of things shall be altered, and the new candidates have been compelled to engage to continue to pursue this branch of teaching. Two of the candidates, MM. Laboulbène and Ollivier, have expressed their consent to this new regulation. Another chair has been made vacant by the death of the venerable Professor Tardieu, who held the Professorship of Legal Medicine for a great number of years. M. Tardieu died last Sunday, after a protracted illness. It is probable that this vacancy will be filled by M. Brouardel, who at present is the Director of the Medico-Legal Laboratory at the Morgue.

Of the sixty-six Republican senators elected last Sunday week, five are members of the profession. Two, MM. Roussel and Dufay, were members of the lower house. This contingent, united to the other members of the profession already in the French Parliament, will form an imposing number, and will ensure the proper consideration of medical and sanitary affairs by the State.

The Municipal Council has allotted a space covering 1600 metres in the Luxembourg Gardens for the erection of an edifice to be devoted to the use of the members of the Academy of Medicine.

Paris, January 14th, 1879.

Obituary.

DR. AMBROISE TARDIEU.

IT is our sad duty to record the death of one of the most eminent physicians of France, Dr. Ambroise Tardieu, Professor of Forensic Medicine at the School of Medicine of Paris, Physician to the Paris Hospitals, former Dean of the Faculty, ex-President of the Government Council of Hygiene, &c. &c. The highest post in every school or society open to medical ambition was successively attained by the late professor. Dr. Tardieu was indeed one of the most highly gifted of men. Every natural power and quality of the intellect he possessed in an eminent degree. His rapidity of conception was great, his memory highly retentive, and his powers of reasoning and exposition truly remarkable. His facility for work was such that Dr. Martineau, one of his favourite and eminent pupils, tells us that his important book on Poisoning was composed and written out entirely in the space of one month and a half, with the employment of only four hours in the morning, from eight to twelve. All the valuable monographs he successively published on questions of legal medicine were written in the same manner. Dr. Tardieu would collect materials, arrange a plan in his mind, and write out the volume at night, from midnight till three, after the hard labours of the day. Or he would devote four hours of the morning to the same task, if it were the period of recess. He published a great number of works or valuable papers in the "Annales d'Hygiène" and the "Dictionnaire de Médecine." A mere enumeration of his writings would almost fill a volume. We will mention only the most important of them, those which should be on the book-shelves of every medical man. They include his clinical and medico-legal study on Poisoning; his medico-legal study on Lunacy; his treatise on Hanging, Strangulation, and Suffocation; his medico-legal study on Rape; the same on Abortion; on Infanticide; and lastly, on Identity. To these may be added his "Dictionary of Public Health," and his reports on the various criminal lawsuits in which he was called upon to report as a medico-legal expert. All these publications—and, indeed, everything he has written—bear evidence of the author having studied each question connected with forensic medicine from a purely clinical point of view. There is not the slightest doubt that in this respect he has entirely revolutionised the subject of medico-legal medicine, and opened-up new and fertile fields. Previous to him, and during the time of Orfila, the medico-legal physician, or expert, was a mere analyst, employed in the labour of finding out a fact. Dr. Tardieu viewed everything from a strictly clinical point of view. Every case was taken up and studied in its features and bearings as connected with clinical physiology and clinical medicine; the analytical work of the chemist was left to a chemist. Of course we are speaking of those cases which have to do with clinical medicine.

One other characteristic of Dr. Tardieu's writings was extreme lucidity of thought and style. The works read charmingly. Everything is nicely grouped and deducted, cleverly arranged, easy to understand, clearly and elegantly written. This extreme lucidity of thought and happiness of expression prevailed in his language, in his discussions, in his teaching, and in all his acts of intellectual work, so that you could dream of no more pleasant orator, teacher, and writer than Dr. Tardieu.

He was a remarkably learned and good physician, and his precision and rapidity of diagnosis are quoted. He was gifted with what is called in France *le coup d'œil médical*, and almost intuitively would make out a diagnosis which rarely failed to be correct.

With the brilliant qualities described, and which are of such especial use in the French system of concours, it is no wonder that Dr. Tardieu rapidly reached every post that he was ambitious to have. At twenty-three he was a doctor of medicine, and before the age of thirty he was nominated Vice-Professor at the School of Medicine, and Physician to the Paris Hospitals. When the new hospital of Lariboisière was completed he was named to the post of physician, and after the death of Orfila, took his chair of Medico-legal Medicine at the Paris Faculty. He was successively and on various occasions named Dean of the School, President of the General Association of French Medical Men, President of the State Council of Public Health, and President of the Academy of Medicine. After the Universal Exhibition of Vienna, where he was sent on some mission, he received the rank of Commander in the Legion of Honour.

Dr. Tardieu's name was especially known and became popular in France in connexion with various lawsuits which interested the public, and in which he was called upon to take a most prominent, decisive, and responsible part as a medical expert.

The case of Sandon was one which proved harmful in more than one way to the Professor. Sandon was a solicitor, whom the minister, Monsieur Hillault, had disappointed or aggrieved in one way or another after having been a great friend of his, and Sandon dogged him with such

tenacity that he was finally taken up as insane. Dr. Tardieu was called upon to give a decisive report, and concluded in favour of lunacy. Sandon was shut up in a maison de santé, but always protested. There was considerable difference of opinion on the matter, all the opposers of the Empire considering Sandon as a martyr. The consequence was that Tardieu was very much criticised and accused of onesidedness and complacency to power. He never could get rid entirely of this imputation, though it was proved after Sandon's death, which took place some years later, and when he had quite recovered his liberty, that there were brain lesions, as shown by the autopsy. Dr. Tardieu was also reproached with being influenced by the "atmosphere" of courts of law, also of a tendency to be too decisive in the conclusions of his reports, and not sufficiently guarded, and strictly medical and scientific, in his conclusions. But his friends and admirers contend that exactly the reverse is the truth; that his judgment was always unbiased, his attitude one of thorough and sincere conviction, and that his reports and conclusions were models of strict scientific investigation and deduction. They argue that all those who have played an active part amongst contesting political parties, and have exerted a responsible action in the midst of the divisions of human prejudice and passion, are exposed to this diversity of judgment.

His functions as Dean of the Faculty, which were as delicate and responsible as those of medical expert, also brought him much trouble. Before being nominated to this high post he enjoyed great popularity amongst the students, and his accession to the deanship, after the retirement of Rayer, was received with general satisfaction. Shortly afterwards, however, took place the affair of the participation of some of the medical students in the Congress of Liège. This was the object of measures of repression contemplated or realised on the part of the government authorities, for which Dr. Tardieu suffered in his popularity; though it is asserted by his friends that he was utterly opposed to any such proceedings. It ended finally in his retirement from the deanship.

Only a man of exceptional worth could have played such a foremost part in so many branches of medical activity. Dr. Ambroise Tardieu will stand forth as one of the most remarkable and eminent figures of his time. His researches and writings will leave him an imperishable name in hygiene and forensic medicine; whilst his brilliant qualities as a teacher, an orator, a learned clinical physician, and a man of commanding intellect, led to his possession during life of every honour and position that can be obtained by personal competition and individual superiority.

DR. R. J. BLACK

(OF HIGHBURY).

ROBERT JOHN BLACK was born in Belfast on the 20th of May, 1828, and was the son of John Black, Esq., a gentleman in easy circumstances, who resided in the town. He received his preliminary education in Belfast and Liverpool, and studied medicine at the Richmond Hospital in Dublin. In 1848 he became a licentiate of the Royal College of Surgeons, Ireland, and was then appointed house-surgeon to the hospital for infectious diseases in Belfast. In 1852 he took the degree of doctor of medicine in the (at that time recently founded) Queen's University of Ireland, and from the fact of his name occurring first in alphabetical rotation at the graduation ceremonial, it may be noted that he was the first man upon whom the degree of doctor of medicine was conferred by the new University. He soon afterwards settled in practice in Belfast on the advice of his maternal uncle, Dr. McClarchan, a well-known practitioner there. He then married and came to the north of London, where he continued to practise till his death.

Dr. Black had an extensive practice, having the complete confidence of his *clientèle*, and enjoyed the respect of all the members of the profession with whom he was brought in contact. He has left a widow and eight children to mourn his loss.

AT a meeting of the Corporation of Dublin held this week, the report of a committee in reference to the amalgamation of the offices of superintendent medical officer and medical officer of health was referred back to the committee for further consideration.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on the 10th, 13th, 14th, and 15th inst.:—

George C. Hamilton, William Eames, and Stephen H. Appleyard, London Hospital; Sydney R. Lidiard, George W. Collins, C. Rowley, G. H. Coates, J. A. Shaw, C. J. Pike, C. A. A. Taylor, and Christopher Vise, University College; A. P. Wells, Cambridge and St. George's Hospital; Septimus Parmer, Richard P. Bond, Frederick H. Norvill, R. L. Ansted, and S. R. Matthews, King's College; Herbert B. Hawksworth, Thos. B. Luscombe, G. F. P. Pizey, R. R. A. Taylor, C. C. Brodrick, Thomas M. Day, James E. Anderton, Lennard Stokes, William Spong, J. F. Spong, S. A. Davies, S. T. M. Evans, and A. T. Perkins, Guy's Hospital; A. C. A. Alexander and H. R. Fuller, Cambridge and St. George's Hospital; Wilfred B. Thomson, Sheffield; Thomas H. Jones, F. L. C. Richardson, Henry W. Stevenson, Francis H. Treherne, and H. Beattie, St. Bartholomew's Hospital; Walter F. Hayes, Ernest E. Bray, and John Ackery, Middlesex Hospital; Arthur Cuttfield and Geo. Weldon, Cambridge; John Peché and D'Arcy B. Carter, Leeds; Charles A. Hebbert, Birmingham and Westminster Hospitals; W. H. P. Lewis, F. Leigh, and F. W. P. Holton, St. George's Hospital; Wm. G. Black, Newcastle-on-Tyne; Henry E. Maberly, Birmingham; Joseph Bradley, Owens College; G. G. D. Willett, Bristol; G. H. Doudney, St. Thomas's Hospital; Wm. H. Legge, Westminster Hospital; George T. Revell, St. Mary's Hospital; C. F. Coxwell, Cambridge; A. W. Dingley and H. E. Williams, University College; C. Brown, Birmingham; T. P. R. Morris, Westminster; G. W. Mullis, F. V. Duckworth, and G. F. Dixon, Guy's Hospital; T. M. King, St. Mary's Hospital; F. E. Taylor, Charing-cross Hospital; P. Phelps, C. E. Ashton, W. Beecham, W. T. Bell, J. Montford, and J. H. Bradshaw, St. Bartholomew's Hospital; E. H. Holthouse, Cambridge and King's College.

APOTHECARIES' HALL.—The following gentleman passed the examination in the Science and Practice of Medicine, and received a certificate to practise, on Jan. 9th:—

Payne, Charles Alexander, Astley-bank, Lewisham.

The following gentleman on the same day passed the Primary Professional Examination:—

Abbott, Thomas Eastoe, Guy's Hospital.

DR. THOMAS EDWARD CLARK, of Clifton, has relinquished practice, for the purpose of taking holy orders in the Church of England.

MR. EDWARD BOARDS, of Edmonton, bequeathed £1000 to Mr. William Hall, his medical attendant; and £1000 to his son, Mr. Frank Hall.

AT the quarterly meeting of the Directors of the Naval Medical Supplemental Fund, Dr. T. Nelson, Inspector General, in the chair, the sum of £65 was distributed among the various applicants.

MANCHESTER MEDICAL SOCIETY.—The following gentlemen were elected as officers of the Manchester Medical Society, at a meeting held on January 8th:—President, Mr. F. A. Heath. Vice-Presidents: Dr. Gumpert, Dr. Leech, Dr. H. Simpson, and Dr. Thorburn. Honorary Secretary: Mr. Cullingworth. Treasurer: Dr. Little. Honorary Librarian: Mr. Windsor. Committee: Mr. A. Boutflower, Mr. Bradley, Mr. Broadbent, Dr. Dreschfeld, Mr. A. Hamilton, Mr. Hardie, Mr. Thomas Jones, Dr. Morgan, Dr. Lloyd Roberts, Dr. James Ross, Mr. Stocks, and Mr. Whitehead. Auditors: Dr. Humphreys and Dr. Simon.

PRESENTATIONS.—Mr. H. C. M. Gibson, M.R.C.S. Eng., has been presented with a salver and a case of dessert knives and forks, all of silver, and a framed list of the 205 subscribers; the salver being inscribed—"Presented to H. C. M. Gibson, Esq., M.R.C.S. and L.S.A., as a proof of affectionate regard, by his grateful parishioners and friends, together with a set of silver knives and forks, on the occasion of his appointment as medical officer of the third district of Yeovil Union. December, 1878."—Mr. J. Price has been presented with a purse of gold, and Mrs. Price with a handsome set of china, by the workmen of the Brynkinallt colliery, to which Mr. Price has been medical officer for two years.—Mr. Robert T. E. B. Cooke, L.R.C.P. Edin., has been presented with a purse of £340, and a silver salver, inscribed—"Presented, with a purse containing £340, to R. B. Cooke, Esq., B.A., F.R.C.S., L.R.C.P.E., by a number of his friends, in recognition of his services to the Dispensary and other public institutions in Scarborough, and as a token of their personal regard. Christmas, 1878."

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.—The annual general meeting for the election of officers and council for the year 1879 will be held at the Society's rooms, 11, Chandos-street, W., on Wednesday, Jan. 22nd, at half-past eight P.M., when the discussion adjourned from last meeting, on Dr. C. Meymott Tidy's paper on Anæsthetics, will be resumed. The following is a list of the names of the Fellows proposed by the Council:—President: S. J. A. Salter, M.B., F.R.S. Vice-Presidents: J. A. Baker, Samuel Cartwright, W. A. N. Cattlin, Alfred Coleman, John Smith, M.D., F.R.S. Treasurer, T. Edgelow. Honorary Secretary: T. Hamilton Craigie. Council: S. H. Cartwright, J. Fairbank, F. Fox, G. Gregson, W. Donald Napier, George Parkinson, John H. Parkinson, and W. G. Ranger.

SOCIETY OF PUBLIC ANALYSTS.—At the annual general meeting of this Society, held at the Chemical Society, Burlington House, on Wednesday last, the 15th inst., the presidential chair was conferred on Dr. Muter, Public Analyst for Lambeth, Newington, Wandsworth, Southwark, Bermondsey, Rotherhithe, and the Borough of Tenterden, in succession to the retiring President, Dr. Dupré. The Vice-Presidents elected were Drs. Dupré (Westminster), Campbell Brown (Liverpool), and Tripe (Islington). Papers on interesting points in the analysis of phosphates, butter, &c., were read by Messrs. Hehner, Jones, and Mills, and the meeting adjourned till February 19th. Afterwards the annual dinner took place at the Café Royal, Regent-street, Dr. Muter, the new President, in the chair.

Medical Appointments.

ANDERSON, J. G., L.R.C.P.I., L.R.C.P.Ed., has been appointed Medical Officer of Health for the Royston Rural Sanitary District, at £100 for one year, vice Ogle, whose appointment has expired.

BROCK, A. C., L.R.C.P.L., M.R.C.S.E., has been reappointed Assistant House-Surgeon to the General Hospital, Bristol.

BUCKLE, J., M.R.C.S.E., L.S.A.L., has been appointed Resident Medical Officer to the Children's Hospital, Brighton, vice Burnie, resigned.

BUTLER, G. W., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Westmeon District of the Droxford Union, vice Rogers, resigned.

CHILCOT, J., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the No. 1 District of the Mere Union, Wilts, vice Bain, resigned.

CHRISTAL, J., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, &c., for the Collon Dispensary District of the Ardee Union, co. Louth, vice Supple, resigned.

CROCKETT, E., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Longford District of the Ashbourne Union, Derbyshire, vice Norman, resigned.

CURRIE, T., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer of Health for the Amble Urban Sanitary District, Northumberland.

DEATH, R., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Buckingham Urban Sanitary District, at £15 for one year.

HAMMOND, T., L.R.C.P.I., M.R.C.S., L.S.A.L., has been appointed Assistant House-Surgeon to the Halifax Infirmary and Dispensary.

HOPKINS, J., M.R.C.S.E., L.S.A.L., has been appointed Assistant Medical Officer to the Central London Sick Asylum District Asylum, Cleveland-street, vice Patmore, resigned.

KELLY, C., M.D., M.R.C.P.I., has been appointed Professor of Hygiene at King's College, London, vice Guy, resigned.

LEACH, J. C., B.Sc., S.Sc.C., F.C.S., has been appointed Public Analyst for the County of Dorset, at £20 per annum, and 10s. 6d. per analysis, for three years; also for the Borough of Poole, at £10 per annum, and 10s. 6d. per analysis.

LOWE, G., L.R.C.P.E., L.F.P.S.G., has been appointed Parochial Medical Officer and Public Vaccinator to the Middleton District, Teesdale Union, Durham.

LYONS, I. I., M.R.C.S., L.D.S., L.S.A.L., has been appointed Dental Surgeon to the Evelina Hospital for Sick Children.

MAHON, G. A. D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Woburn Union Workhouse, vice Macdonald, resigned.

MAY, J., M.R.C.S.E., L.S.A.L., has been appointed a Senior Surgeon to the Royal Albert Hospital, Devonport.

MORRISH, R. A., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Garston District of the West Derby Union, Lancashire, vice Archer, resigned.

O'DOHERTY, J. J., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Officer, Public Vaccinator, &c., for the Cushendall Dispensary District of the Ballycastle Union, co. Antrim, at £120 per annum and fees, and £20 per annum as Medical Officer of Health, vice Cronin, resigned.

PARROTT, T. M., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Burnham District of the Eton Union, vice Heap, resigned.

PENMAN, P. M., M.B., C.M., has been appointed Assistant Medical Superintendent, Stirling District Lunatic Asylum, vice Mann.

PICKERING, C. F., L.R.C.P.L., M.R.C.S.E., has been appointed House-Surgeon to the General Hospital, Bristol, vice Harsant, resigned.

RALFE, C. H., M.D., F.R.C.P.L., has been reappointed a Visiting Physician to the Seamen's Hospital, Greenwich, for five years.

RIDOUT, Mr. R. H., has been appointed Public Analyst for the Borough of Monmouth, at £10 10s. per annum, 10s. 6d. for each analysis of food or drugs, and 21s. for each analysis of water, vice Jones.

SHANAHAN, J. F., L.K.Q.C.P.I., L.R.C.S.I., & L.M., has been appointed Medical Officer, Public Vaccinator, &c., for the Adare Dispensary District of the Croom Union, co. Limerick, at £120 per annum and fees, and £25 per annum as Medical Officer of Health, vice Peirce.

SILCOCK, A. Q., M.R.C.S.E., has been appointed Surgical Registrar to University College Hospital, vice Burton, appointed House-Surgeon to the Norfolk and Norwich Hospital.

TAYLOR, S. T., M.B., L.R.C.P.I., has been appointed a Physician to the Norfolk and Norwich Hospital, vice Copeman, appointed Consulting Physician.

TELFORD, J., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Officer for the Pilkington District of the Bury Union, Lancashire, vice A. B. Telford, M.D., resigned.

THOM, G., M.R.C.S.E., L.S.A.L., has been appointed a Junior Surgeon to the Royal Albert Hospital, Devonport, vice May, appointed a Senior Surgeon.

WALLACE, W., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for the Parish of Portpatrick, Wigtownshire, vice Cochrane, resigned.

WANKLYN, J. A., M.R.C.S.E., has been reappointed Public Analyst, for one year, for the Borough of Buckingham, at 20s. per analysis, 20s., and 3d. per mile going and returning, for attending as a witness, and 10s. 6d. for each statutory report.

WAYLEN, C. W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the E and F Relief Districts of the St. George (Hanover-square) Union, vice Fenton, resigned.

Births, Marriages, and Deaths.

BIRTHS.

CAMERON.—On the 4th inst., at Harlesden, N.W., the wife of Charles H. H. Cameron, L.R.C.P.L., M.R.C.S.E., prematurely, of a daughter (still-born).

CREMEN.—On the 6th inst., at Camden-place, Cork, the wife of Patrick John Cremen, M.D., of a daughter.

MACRAE.—On the 11th inst., at Craigville, Laggan, Inverness-shire, the wife of John MacRae, M.D., of a daughter.

MALE.—On the 10th inst., at Victoria-park-square, the wife of Henry D. Male, L.R.C.P.L., of a daughter (still-born).

SMITH.—On the 10th inst., at Charles-street, Berkeley-square, the wife of Barton H. L. Smith, M.D., of a daughter.

WILSON.—On the 10th inst., at Greenbank, Johnstone, the wife of James Wilson, M.D., of a son.

MARRIAGES.

BRIGGS—COOKE.—On the 8th inst., at St. Andrew's Church, Bath, by the Rev. Canon Bernard, George Chapman Briggs, M.B., of Harrow-on-the-Hill, to Emma Mary, only daughter of Henry Edward Cooke, Esq., of Bury, Alverstoke, Hants.

GALLOWAY—FOGARTY.—On the 14th inst., at St. Saviour's, Brixton, by the Rev. W. B. Galloway, assisted by the Rev. R. D. Galloway, Arthur Wilton Galloway, M.R.C.S., to Louisa Warde, daughter of the late George Taylor Fogarty, Surgeon 10th Regiment Bengal Native Infantry.

DEATHS.

AMBLER.—On the 11th inst., at Hemel Hempstead, Herts, of septicæmia, followed by apoplexy, Edward Holland Ambler, F.R.C.S.E. & L.S.A.L., Senior Surgeon West Herts Infirmary, &c. &c., aged 57.

CARRICK.—On the 7th inst., at Newcastle-on-Tyne, William Carrick, Surgeon, formerly of Carlisle.

CARTER.—On the 8th inst., at Upper Parliament-street, Liverpool, Albert Edward Carter, L.R.C.P.Ed., aged 37.

COPINGER.—On the 11th inst., at Grand-parade, Cork, John Copinger, M.D.

CROFTS.—On the 17th inst., at British Honduras, Freeman Wills Crofts, M.B., Surgeon, Army Medical Department, aged 25.

GOODICKE.—Found dead in bed, on the 6th inst., Edward F. W. R. Goodicke, L.F.P.S.G., of Freemason-terrace, Stratford, aged 45.

MASON.—On the 13th inst., at Sudbury, Suffolk, Maurice Mason, M.R.C.S.E., L.S.A.L., aged 75.

OTWAY.—On the 10th inst., at Kennington-park-road, C. W. Carrol Otway, F.R.C.S.E., aged 63.

THOMASON.—On the 11th inst., at Whittall-street, Birmingham, Richard Thomason, M.R.C.S.E., aged 51.

WEBSTER.—On the 8th inst., at Warriston-crescent, Edinburgh, Dr. Alexander Binny Webster, formerly of the Bengal Service.

WEBSTER.—On the 11th November, at Balruddery, Oamaru, New Zealand, George Murray Webster, M.D., aged 80.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages and Deaths.*

BOOKS ETC. RECEIVED.

J. V. Vesey Fitzgerald: Notes of Statutes and Legal Decisions affecting the Public Health Act, 1875.

H. P. Potter: Gonorrhœal Rheumatism.

J. Hinton on the Art of Thinking.

Three Months in the Paying Ward of a London Hospital.

Dr. F. Beely: Zur Behandlung einfacher Fracturen der Extremitäten mit Gyps-Hanf-Schienen.

P. Magnus: The London Science Class-Books.

METEOROLOGICAL READINGS.

(Taken daily at 8 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, Jan. 16th, 1879.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb	Dry Bulb	Solar Radiation in Vacuo	Max. Temp in Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 10	29·71	S.E.	..	37	..	29	25	..	Cloudy
,, 11	29·57	E.	..	26	..	28	22	..	Cloudy
,, 12	30·21	N.W.	..	27	..	35	20	..	Cloudy
,, 13	30·08	S.W.	42	43	..	48	25	0·04	Overcast
,, 14	30·03	S.W.	44	44	..	47	40	0·01	Overcast
,, 15	29·68	W.	40	41	..	47	39	0·22	Cloudy
,, 16	29·91	S.E.	34	35	..	..	31	0·03	Foggy

Notes, Short Comments, and Answers to Correspondents.

VOLUNTARY SANITARY INSPECTORS.

THE Société Française d'Hygiène is now engaged in elaborating a project which, if realised, will certainly occasion a considerable agitation, and probably bring about a more rigorous application of sanitary measures. The proposition emanates from Dr. L. Grellety, Consulting Physician at Vichy, and was explained in an excellent speech delivered to the French Society of Hygiene. Dr. Grellety urges that the discussions and resolutions held and adopted by bodies of scientific men have but little or no influence on the public at large. The Society had recently offered a special reward for the best popular pamphlet on infant mortality; but they might rest assured that the mercenary nurses, who were principally responsible for this excessive mortality, would not see or read a single copy of the work in question. The action of the Society for the Suppression of Cruelty to Animals had been far wiser, and its practical results more effective. At present, animals were better protected in France than human beings. Dr. Grellety consequently proposes that a petition be presented to the National Assembly, demanding that each member of the Société d'Hygiène should be armed with powers similar to those conferred by the Grammont Law on the members of the Society for the Suppression of Cruelty to Animals. The members should be provided with a card, which would enable them to requisition the assistance of the police to enforce the execution of sanitary laws wherever these are grossly neglected. Thus words might be converted into deeds, and the sanitary reformers could actively intervene to succour neglected infants from the incapacity of their nurses; youths from working over-hours in factories; the poor from adulterated food; and the inhabitants of towns from the cupidity of proprietors who bargain with their tenants for light and air. As the Government inspectors have not yet succeeded in coping with all these evils, some voluntary assistance might be of considerable service. On the other hand, the public would at once become far more interested in the doings of the Society of Hygiene, and would follow its debates with more attention; the number of adherents would rapidly increase, and knowledge in sanitary matters would consequently be diffused with greater effect and promptitude. As matters now stand, there are actually more persons enrolled in the Society for the protection of animals than in this Society, which has for its sole aim the protection of human life. If Dr. Grellety is successful in obtaining assent to his petition, the same powers will have to be extended to the members of the rival sanitary association, the Société de Médecine Publique et d'Hygiène Professionnelle, which is more intimately connected with the powers that be, and enjoys great influence in governmental circles. To influence the French Legislature it will be necessary that both Societies should unite in demanding the same thing; and as some such action as that suggested is evidently necessary, to judge from the deplorable state of health matters in France, we hope that minor differences will be sunk, and the united action of all sanitary reformers secured, so that their influence may be fruitful in practical results.

DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—With regard to diphtheria, will you allow me to say that when it has broken out in a family I have found solution of perchloride of iron, chlorate of potash, and quinine, given to the unaffected members of the same, most efficacious in securing their immunity from the disease. Others may have observed the same thing; but I cannot find that it has been noticed in your journal.

Yours truly,

Redhill, Jan. 9th, 1879. A. R. WAGHORN, M.D.

J. M. G.—The rule is to isolate all infectious cases by placing them in a separate ward. There is usually only one for each sex set apart for the purpose. Whenever practicable, it is the custom to send small-pox cases to a special hospital.

Dr. J. P. Atkinson.—We agree with our correspondent that the dignified course is to retire in favour of B.

THE MEDICAL WOMEN QUESTION.

ON the 8th instant a meeting of the members of the Medical Society, College of Physicians, Ireland, was held to take into consideration a question referred by the Council to the Society as to the interpretation of Rule 1—viz., "All Fellows, Honorary Fellows, and Licentiates of the College, unless such as may be under censure, are, *ipso facto*, eligible as members of the Society, and 'may' be admitted on payment of the entrance fee and annual subscription." It appears that Miss Jex-Blake, with two other ladies, being licentiates of the College, forwarded their subscriptions and entrance fees in order to become members of the Society—a matter in which the Council were uncertain as to their course of proceeding. Some of the members thought that the word "may" left it optional with the Council to elect a candidate as a member of the Society, while others considered that the word had the force of "shall," and that the Council must elect every licentiate who pays the necessary subscription and entrance fee, and desires membership. After a very animated discussion, it was ultimately decided to leave the interpretation of the rule to the College itself.

E. J. P.—As medical officer of health, the duty described would form part of the ordinary service, without claim to extra fees.

Mr. R. Richardson.—The matter is at present under consideration.

IODOFORM.

To the Editor of THE LANCET.

SIR,—"M.D." thinks it would be desirable to give a succinct account of iodoform, both as an internal and external agent. It was discovered by Sérullas in 1822, and recommended by Dr. Glover in 1837. Its composition is CHI_3. It is called methenyl iodide, teriodide of formyl, sesqui-iodide of carbon, and its composition was formerly written C_2HI_3. It is a yellowish, crystalline body, with a strong odour of saffron, easily soluble in alcohol, ether, and oils, but insoluble in water. The dose is one to three grains internally in pill, and an ointment may be made by rubbing up thirty or sixty grains to an ounce of benzoated lard for external use, or the powder may be dusted over ulcerated parts. It is most easily made by mixing a solution of potassium hydrate and iodine in alcohol until the colour becomes distinctly yellowish. It melts at 245° F. It may also be made by a mixture of sodium carbonate and alcohol, added to a solution of iodine, or chlorinated lime added to a hot alcoholic solution of potassium iodide. Its solubility in chloroform in about 1 in 12, in ether 1 in 20, in alcohol 1 in 80. It may be given in mixture rubbed up with mucilage and water, so as to cause suspension of the powdered iodoform if preferred to pills. Iodoform does not cause sleep; but in poisonous doses the ill-effects are due to iodine being set free in the tissues. Three grains have given to the urine a strong iodine reaction, showing that iodoform is decomposed in passing through the system. Rancid oil also decomposes it. May not the good effect observed when applied to ulcerated parts be due to decomposition taking place, iodine being set free? It has been used in cancer of the rectum, and a suppository introduced so benumbs the part that defecation is said to take place without pain. In cancer of the uterus, in doses of two to three grains, it has been said to prove useful; and it has also been applied to the ulcerated cervix with the effect of diminishing pain. It has been used in painful bladder affections, enlarged prostate, scrofulous enlargements, bubo, bronchocele, bed-sores, chancres, and other affections. In phthisis it may be mixed with starch, and the vapour inhaled. The pain of gout or neuralgia is not relieved, according to my experience, by its administration; and its solution in chloroform, as recommended by Ringer, is too painful to be used in neuralgia, except in a few cases, for any length of time. It is infinitely inferior to the hypodermic injection of morphia. It is sometimes useful in chronic eczema; but I question if the use of iodoform in skin affections has any advantage over iodine. Binz states that in irritation of the brain and spinal cord it has proved valuable. Patients to whom it has been given exhale a distinct odour of iodoform. It contains nine-tenths of its weight of iodine, and may be given for longer durations of time than iodine, as it does not cause irritation of the tissues to the same extent. Wood states that in the extensive trials made with iodoform in Philadelphia it has failed to sustain its first reputation. There can be little doubt, however, it is useful in cases of painful ulceration when applied either in the form of powder or ointment. Erichsen speaks highly of it.

Yours truly,

Northallerton, Jan. 1879. HENRY BROWN.

Mr. Walter Plumley.—1 and 3. A chemist can perform such operations, and charge for them; but he cannot claim in a court of law unless registered as a dentist.—2. The regulations as to registration are—a fee of £5, and proof of the possession of a diploma in Dentistry, home, foreign, or colonial, or of having been in practice as a dentist prior to the passing of the Act.

Surrey.—The conditions described are very defective. Why not represent the matter to the medical officer of health for the district, and ask him to interfere?

A Guy's Student.—Drinking-water may be rendered innocuous by boiling at a high temperature and for some time.

Dr. D. Hooper.—We hardly think it advisable to publish the letter.

A CAUTION.

To the Editor of THE LANCET.

SIR,—If you could spare a corner to caution medical men against a person claiming pecuniary relief on false pretences, you would prevent a perversion of charity, and perhaps induce the individual to turn his attention to some other calling.

Yours truly,

Stratford-place, W., Jan. 14th, 1879. THOS. SMITH.

REMOVAL OF INFECTIOUS CASES TO HOSPITAL.

THERE is a fever cab retained by the Public Health Committee of the Corporation of Dublin for removing patients with infectious diseases to hospital; but hitherto payment of a sum of five shillings for the removal of a patient has in every instance been required before the vehicle could be obtained. That this charge was illegal there is not the slightest doubt, as the 140th section of the Public Health (Ireland) Act, 1878, states that every sanitary authority shall provide and maintain a carriage suitable for the conveyance of persons suffering under any infectious disorder, and shall pay the expense of conveying such patients to hospital or other place of destination. Recently, complaints having been made as to the illegality of this charge of five shillings, the matter was pressed on the notice of the Public Health Committee, who were ultimately compelled to issue instructions that the vehicle in question should be available for the future without charge to those requiring it.

Mr. McFachen.—Our correspondent will find the information he requires in our leading remarks in another column.

PITURI.

To the Editor of THE LANCET.

SIR,—Seeing a notice of pituri in your journal of Dec. 21st, 1878, I at once recognised an old friend about which I picked up a few interesting facts while travelling many years ago in Central Australia.

First, with regard to name, "pituri" appears intended, but fails, to convey the native sound of the word. Howitt, the able leader of our party, who spoke the Cooper's Creek dialect fairly well, always spelt it "pitchery," which conveys the true sound, the accent being placed upon the antepenult "pitch," as in almost all trisyllabic words of this language. "Pitch'ery," therefore, or the more modern form, "pitchiri," is correct if it be desirable to maintain the native pronunciation of such words.

This substance was apparently unknown in 1862 (the year of Howitt's expedition) to natives south of the drainage line of Cooper's Creek, which trends S.W. from its sources in the dividing ranges of Queensland (lat. 23°, long. 145° about) to its terminal expansion and desiccation in S. Australia (lat. 30°, long. 137° about). It is probable that its use formerly extended south of this boundary, and that it receded before the white man's tobacco, now the chief luxury and current coin amongst the blacks of the out settlements. We often questioned the Cooper's Creek natives as to where they got their pitchiri, and they invariably pointed northward as the quarter it came from, using at the same time the words "tooch tooch," "far away, far away." Howitt discovered that they traded regularly for it with the natives beyond Sturt's stony desert, and he found it convenient, on account of water, to follow their trading track in one of his exploration trips from our depôt, or Cooper's Creek, to Willes' Creek beyond the desert (from about lat. 27° 50', long. 141° 5', to lat. 25° 48', long. 139° 30'). Referring to this journey, he says, in a dispatch from Angipena, S. Australia, dated Sept. 2nd, 1862: "The track I followed across the desert is one made use of by the natives of Lake Hope, Cooper's Creek, and Kyejeron on their journeys to procure the *pitchery*, so much used by them as a narcotic, and on this account I conclude that it is the shortest route known to them." It is, I think, quite certain that this plant does not grow on Cooper's Creek, else the natives would possess it more abundantly, and would have pointed it out to us when so frequently questioned on the subject. Thus they made no secret of showing us their *nardoo*, *papa*, and *boura* seeds, nor objected to inform us about their edible fruits, herbs, roots, and ground nuts, although one would naturally expect them to be jealously watchful of every ounce of food in so inhospitable a country. Pitchiri, in short, was so scarce amongst the Cooper's Creek tribes that they parted with only small quantities in barter for wax matches, which was our golden currency. The men carried it in small skin bags tied round their necks or under the axillæ, but I never noticed the women with any. They never travel without it on their long marches, using it constantly to deaden the cravings of hunger and support them under excessive fatigue. King, the survivor of the Burke and Willes expedition, who had lived seven months with these natives when rescued by Howitt, states that when his food became so scarce and bad as barely to support life, he sometimes obtained a chew of pitchiri, which soon caused him to forget his hunger and the miseries of his position.[1] It also plays an important part in the social rites of these natives. At their "big talks" and feasts the pitchiri "quid"—for I can find no more appropriate word for it—is ceremoniously passed from mouth to mouth, each member of the tribe having a chew, from the *pin'aroo*, or head man, downwards. This singular wassail cup never fails to promote mirth and good fellowship, or to loosen the tongues of the eloquent. I have not been able to ascertain if the excitement it produces can be pushed to actual intoxication, or whether natives suffer from its use. There is a curious mode of greeting on Cooper's Creek. When friends meet, they salute with "*gauve, gauve*" ("peace, peace"), and forthwith exchange pitchiri "quids," which when well chewed are returned to their owner's ears! They extended this custom to us; but the fullest appreciation of their hospitality in offering their highly prized and indeed only stimulant could never overcome our repugnance to the nauseous morsels hot and steaming from their mouths. I may add, they always accepted our want of politeness good-humouredly. The "quid" which I have spoken of, which is carried behind the ear, is composed of pure pitchiri, green leaves, and wood-ashes. The pure pitchiri I saw resembled unmanufactured tobacco of a very coarse kind, dried and pulverised. It had the same brownish colour; but the stalks and midribs, which were strong, preponderated over the finer parts of the leaf. I could never obtain an unbroken leaf nor even a good piece of one as a specimen. It had no particular smell, but a most pungent taste, which to me appeared like tobacco, and chewing it promoted a copious flow of saliva. The natives take a good pinch of pitchiri, and knead it with green leaves, I think to increase the size of the masticatory and moderate its power. We know that the Malays add sirih-leaf (*Piper betel*) to their areca-nut, and lime to increase its stimulant properties; but I could never discover the use of any condiment in this way by the Cooper's Creek blacks, all non-poisonous leaves appearing to be used indifferently. By the addition of wood-ash to the masticatory, the alkaloid is slowly liberated, and thus the strength of the "bolus" gradually augmented by keeping, as noticed in THE LANCET's annotation. Natives, on using our tobacco, call it "whitefellow pitchiri," and conversely some whites who smoked pitchiri pronounced it a good substitute for tobacco. From these confessedly rough and ready data I have always up till now regarded this substance as a variety of *Nicotiana*. Its toxic action and that of tobacco, to judge by the experiments of Dr. Bancroft, are singularly alike; for the successive stages of mild cerebral excitement, loss of inhibitory power, copious salivation and subsequent dryness of mouth, irregular muscular action, nausea, dilatation of pupil, languor, drowsiness, and paralysis of the respiratory functions of the medulla appear in both. But the experiments of Drs. Ringer and Murrell with the alkaloid of pitchiri point to marked physiological differences between it and nicotia, more especially in the pupil indications. I must leave the discussion of these nice points to competent hands, as I aim no higher in this letter than to give a traveller's account of pitchiri.

I remain, Sir, yours truly,
JAMES P. MURRAY, L.R.C.S.I., &c.,
Late Surgeon to the Victorian Contingent Search Expedition into Central Australia.

Newlands, Manchester, Dec. 28th, 1878.

[1] See King's Narrative in the History of Burke and Willes' Expedition.

Mr. Phillimore, M.B., and R. H. B. W.—The question was submitted in a recent case, and decided as we have described. Medical superintendents may make post-mortem examinations for scientific purposes with the consent of the friends, or after notice given, and no objection being made. If still in doubt, ask the Commissioners. Asylums are not on the same footing as workhouses. Of course, by "scientific purposes" we mean, to ascertain the cause of death. Every pathological investigation has this as its primary object.

Mr. H. Pearson.—We cannot name a practitioner. Consult the Medical Directory.

"EPHEMERAL PARALYSIS OF BABIES."

To the Editor of THE LANCET.

SIR,—In your issue of the 4th instant is an annotation with the above heading, which states that "M. Jules Simon, at his clinique at the Hôpital des Enfants Malades, described an affection which he said "was not to be confounded with infantile paralysis," and which "has one of two causes: first, powerful constriction, as by a sudden grasp of the hand by a nurse; secondly, cold, as by seating a child upon a damp lawn; and is accompanied by pain and hyperæsthesia."

May I be allowed, Sir, to protest against such a definition. The cases here stated are distinctly twofold: first, the paralysis by pressure, which was well described by Kennedy (*Dublin Quarterly Journal of Mental Science*, vol. ix., 1850), and mentioned by Underwood (Treatise on Diseases of Children, seventh edition, 1826) as arising from pressure from "vicious decubitus," &c., and quite temporary in character; secondly, the lighter form of what I have ventured to call "regressive paralysis," which until lately was considered to be peculiar to infancy, but which is now known to be also found in adult life, and which may be either temporary or permanent according to the amount of irritative change set up in the nerve centres.

I have just published my views upon this, with a table of sixty-three cases, in the Liverpool and Manchester Medical and Surgical Reports, and a reprint has been issued by Messrs. Cornish, of this city, and which I trust may in due course be honoured by your notice and criticism.

Yours truly,
W. H. BARLOW, M.D.,
Consulting Physician to the General Hospital and Dispensary for Sick Children, Manchester.

Manchester, Jan. 6th, 1879.

Mr. Horace Cocks should apply to Mr. Miller, the Registrar. It is very intelligible that under the pressure of recent duties he should have overlooked our correspondent's letter, or been unable to answer it.

An Enquirer.—Next week.

Mr. Verity. — We have no recollection of the case or the report referred to.

ADMINISTRATION OF ANÆSTHETICS.

To the Editor of THE LANCET.

SIR,—In a paper by Dr. C. Meymott Tidy on Anæsthetics, reported in your journal of Jan. 4th, I find the following remarks:—"The administration of the anæsthetic should be absolutely confined to a qualified practitioner. Hence it is perfectly unjustifiable for any unqualified practitioner, however qualified as a dentist, to administer an anæsthetic to any patient," &c. "No anæsthetic should be administered except by a qualified medical man, and, if possible, by an expert. The operator should have nothing to do with the administration of the anæsthetic, and the administrator of the anæsthetic should have nothing to do with the operator. . . . If possible three qualified medical practitioners should be present in the event of something going wrong," &c.

May I, through your columns, venture to protest that such emphatic doctrine should be supported by *statistics*, without which it has the appearance, at least, of an assumption of superiority and sole prerogative, ill-comporting with the delicate sensitiveness usually ascribed to gentlemen of culture; the great majority of the dental profession freely using anæsthetics, although in Dr. Tidy's estimation "unqualified," not even originally intended for, and (like myself) articled to, the medical profession.

Yours obediently,
Bristol, Jan. 5th, 1879. J. S. SMART, D.D.S., M.C.D. (Exam).

CALCULUS IN THE FEMALE.

AT a recent meeting of the Surgical Society of Ireland, a paper on the Removal of a Large Calculus from a Female was communicated by Dr. Atthill. A discussion ensued as to the advisability of using rapid dilatation of the urethra, or the slower method by the introduction of sea-tangle, &c. The general opinion appeared to be that where sudden dilatation was used, no permanent incontinence of urine occurred; but that when prolonged dilatation was employed there was always more or less incontinence.

M.D.—The rule of not charging for attendance on the immediate families of medical men is based on the assumption of good feeling between the respective practitioners. In the circumstances mentioned we do not think the rule binding.

Dr. Jas. M'Munn, (Wolverhampton.)—If our correspondent will forward the paper, it will receive due consideration.

THE DALTON FUND.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me to acknowledge in your next issue the following additional donations, and again to solicit assistance.

James Smart, Esq.	£1	1	0	Dr. W. Lewis	£1	1	0
Dr. W. W. Day	1	1	0	A Friend	10	0	0
F. H. Alderson, Esq. ..	1	1	0	Arthur Stedman, Esq. ..	1	1	0
T. C. Lawson, Esq.	1	1	0	Hy. G. Sadler, Esq.	1	1	0
Omega	0	5	0				

Yours &c.,

Hampstead, Jan. 1879. H. COOPER ROSE, M.D.

Mr. F. J. Rudland.—Such separate examinations are held by the College of Surgeons of England (though suspended for the present), by the King and Queen's College of Physicians, and the College of Surgeons in Ireland.

H.—We cannot revive the discussion on vivisection. The medical profession is fully on the alert to obviate needless pain.

Mr. E. Marcuse.—Declined.

"BOARD AND DENOMINATIONAL SCHOOLS AS CENTRES OF FEVER POISON."

To the Editor of THE LANCET.

SIR,—Dr. D'Oyley Foote's paper in your issue of Dec. 28th, on the above subject, I have perused with the deepest interest. Perhaps the following may suggest itself to some as a practical way of making schools to be centres of fever poison in a very much less degree.

We are having here, in one of the most lovely glens in Scotland, an epidemic of scarlet fever of a remarkably virulent type. About six weeks ago it began with an imported case, and was set agoing in full swing by children from the home in which the patient lay, being, as usual, in attendance at school. That school and the other one in the village were speedily closed, but not before the deadly germs had been sown broadcast. The harvest is now being reaped in nearly 80 cases and, already, 25 deaths. What the end may yet be, no one can tell.

Now, I believe that the parents of that first case acted in perfect good faith, all unaware of the disastrous result that was so speedily and so surely to follow. Had they known what they must now know, they would have kept their children at home, and, as these children have all recovered, not one single death or case out of the house might have resulted. I have no reason to suppose that the knowledge of the laws of infection that is possessed by parents is any greater or less in other parts of the country than it was in the present instance. And what has happened here is probably identical with the primary cause of hundreds or of thousands of epidemics elsewhere, with the mortality consequent thereupon. It follows, therefore, that as schools are an absolute necessity, the parents and guardians of the scholars must have *what they ought to do* held up prominently and constantly before them. With that purpose in view, I should strongly urge that a minute be issued by the Board of Supervision, our chief sanitary authority in Scotland (to which country I would beg to limit my remarks), ordaining that all School Boards and managers of schools generally should print on the back of the usual fortnightly, monthly, or quarterly bills for school fees a suitable paragraph, simple, brief, and easy to understand. The able medical officer of that Board could readily draft a satisfactory paragraph. It ought to be borne in mind that, besides the parents and guardians, the scholars themselves would have the opportunity of reading it, and thus the rising generation would have early instilled into its receptive mind a lesson in sanitary science. The paragraph might be framed thus:—

"Whenever measles, small-pox, scarlet fever, typhoid fever (and naming the other infectious or contagious diseases) shall have entered your dwelling, no one living therein must come to school. Keep them at home until you can show the teacher a doctor's certificate that it will be proper for them to return to school."

Had that been acted upon here, we would have been saved the epidemic of scarlet fever and its terrible consequences; the School Board of the parish would have saved at least six weeks' fees of several hundreds of children, and the certain loss of a considerable portion of the Government grant. And this is only one school district of a large parish. Compared simply with the pecuniary loss now detailed, the few pence or shillings that would be incurred through the printing of that short sanitary regulation must appear a mere bagatelle.

In conclusion, I firmly believe that my plan is at once simple, inexpensive, and efficacious, and that it will achieve a result so very desirable as the diminution of epidemics of infectious or contagious disease by placing a simple rule prominently before the eyes of the very people who might possibly have it in their power to introduce, *all unwittingly otherwise*, myriads of germs of deadly infectious disease into a crowded school.

I am, Sir, yours truly,

JNO. B. DALZELL, F.G.S. Edin.

Lesmahagow, N.B., Dec. 28th, 1878.

Electricity. — 1. (*a*) It is very much a matter of fancy. (*b*) Yes. — 2. (*a*) Most certainly. (*b*) The positive becomes negative, and *vice versâ*. 3. The negative is more stimulating and, if long applied, very caustic. 4. Because the current undergoes momentary alterations as a matter of course.—5. For example, spinal cord is more central than terminal nerve-twig.—6. Not by electricity.—7. No.—8. The elementary facts are concisely stated in Poore's work.—9. Consult any book on Medicine.

PUERPERAL CONVULSIONS.

To the Editor of THE LANCET.

SIR,—In your issue of Jan 4th, 1879, Mr. Vincent asks the question of your readers what treatment has been found of most benefit in puerperal convulsions; and as I had ten cases during the first six months of last year, a most unusual number, with only one death, perhaps I may be allowed to say something on the subject.

The treatment I adopted in several of these labours, in which the circumstances were similar to those described by Mr. Vincent—that is, the labour commencing with convulsions—may, no doubt, be called heroic; but it was satisfactory in the result and safe—namely, to empty the womb at once by turning, whilst the patient was under chloroform, without waiting for a dilated os; neither did I bleed nor use any of the other usual means adopted to secure this dilatation. In every instance but one this treatment was successful. In that case I did not see the patient until she had been suffering from most violent convulsions for some hours, and when I arrived her skin was purple, and she was evidently asphyxiated. She died a few minutes after delivery, never having recovered the slightest consciousness after her first attack.

In all my cases I trusted to chloroform, keeping them under its influence as long as needful. Chloroform I look upon as our sheet-anchor on such occasions, and it is astonishing how large a quantity may be given with safety and advantage. I would strongly advise any practitioner who may be sent for to a labour commencing with convulsions, at once to give chloroform fully, and then turn and deliver, even should the os only admit the tip of one finger. Gentle but continuous pressure will soon compel it to admit another, until having inserted all the fingers, the operator will be surprised to find the os yielding readily, allowing the whole hand to be admitted, and he is enabled to turn and deliver with safety. I then give a good dose of chloroform, and find the convulsions gradually subside; in one case they went on for forty-eight hours, but the patient recovered. I have satisfied myself this may be done without laceration of the os or other injury, and I have in one case completed the whole process within fifteen minutes. My experience of the fatality of labours commencing with convulsions previous to adopting this practice was, I am sorry to say, largely in excess of one in four, and this, I think, would coincide with the experience of most of us, one in four being about the proportion of all cases of puerperal convulsions taken together, those coming on during labour not being so fatal from the accoucheur acting at once, and delivering either by turning or instruments. Waiting for the os to dilate has been with me the cause, I have no doubt, of death, in future to be avoided. All will agree that it is desirable to empty the uterus as soon as possible, and by so doing relieve the vessels of the head, and prevent that effusion of blood or serum which takes place if relief is delayed; and I am quite satisfied from my own experience that this relief may be given safely, and if it can, why wait? Convulsions coming on during the progress of labour are best treated in the same manner—by giving chloroform and turning, or by the forceps; but should the case not be suitable for either turning or the forceps, I should not hesitate at once to use the perforator.

Convulsions after labour are, I believe, best treated by a free bleeding, chloroform, and purging. In these cases the mortality is low, and, according to my experience, patients generally recover.

Mr. Vincent has done good by his question, as it will lead others to give us the result of their practice, and so enable us to treat with more success an affection which is acknowledged to kill about a quarter of those who are the subjects of it—a rate of mortality which is as dreadful to think of as the affection is horrible to behold.

I remain, Sir, yours truly,

HENRY LAVER, M.R.C.S., &c.,
Surgeon to the Essex and Colchester Hospital.

Colchester, Jan. 14th, 1879.

J. E. F.—A registered L.S.A. can, in accordance with the 42nd section of the Passenger Acts Amendment Act of 1855, cap. 119, take charge of emigrants. The second question is so purely legal that we decline to answer it categorically; but, as a rule, it is not wise for an individual to "sue" a Government department.

Mr. Rae is thanked, but the matter was unsuitable.

ROUGHING HORSES.

To the Editor of THE LANCET.

SIR,—The ordinary method of "roughing" horses is objectionable, involving much loss of time, outlay of money, and injury to the hoof by the repeated removal and replacement of the shoe.

For many years I have had my horses shod from the commencement of winter with shoes provided with screw-holes, into which iron studs can be screwed in a few minutes, and removed with equal facility. For most horses two studs to each shoe, one at each heel, are sufficient. The extra cost of these appliances is not great, and their efficiency is unquestionable. Several of my medical friends have followed my example; but the expedient, though original with myself, is, I have learnt, by no means novel.

The "Goodenough" system of shoeing gives the horse, even without roughing, a much more secure foothold than the ordinary shoe.

Your obedient servant,

Birmingham, Dec. 31st, 1878. JOHN W. KEYWORTH.

*** Other letters, with suggestions similar to that contained in the foregoing, have reached us; but, from want of space, we are compelled to omit them.—ED. L.